

THE ARCHITECTURAL REVIEW



The Cover is a double image of two opposed concepts of urban planning. Viewed upright Gordon Cullen's drawing epitomises the inhuman concept of the corridor street, the noisy slot between towering buildings, where pedestrians and vehicles fight for breath and motion. Turned through ninety degrees it reveals a vision of the humane corrective to the corridor street, broad pedestrian piazzas with shelter from the weather as well as from the automobile. The re-planning of Notting Hill Gate in terms of this second concept is discussed in Kenneth Browne's article on page 312.

295 Marginalia

298 Frontispiece

299 Man in a Hot Tin Box by J. M. Richards

Most attempts to plan for the motor-star fail on one simple point. If more space is created for automobiles to circulate in, more automobiles will at once appear to fill it up to congestion conditions again. Mr. Richards suggests that the reason for the multiplication of private motor-cars is not functional, but arises from the outlet they provide for instincts that could be better satisfied in other ways. He believes that we should actively discourage cars just as we have now accepted the idea of actively discouraging too scattered house building, and make wider use of an improved public transport. This may sound retrogressive, but, while motorists continue to defeat their own ends by clogging the streets and occupying land to the point where circulation and urban life become impossible, any measure that helps to turn the motor car into an asset, not a menace, is progressive.

303 School at Wandsworth, London: Architect, Sir Leslie Martin

306 School at Lewisham, London: Architect, Peter Moro

310 School at Stevenage, Herts: Architects, James Cubitt and Partners

312 Streetscape with Furniture by Kenneth Browne

Recent and approved proposals for the re-development of the Notting Hill Gate area in London make it possible to re-

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Volume 123 Number 736 May 1958

appraise some pressing problems of street design from the pavement up. The block plan for this scheme, prepared by Cotton, Ballard and Blow, with its high and low buildings, set back at varying distances from the kerb-line, marks a small but praiseworthy break from the evil corridor-street routines of real-estate development, and this small beginning could be enhanced and made even more effective by using floorings, furniture and overhead shelter to break up the flow of both vision and pedestrians along the street. The chances are, however, that furniture in particular will be used in just the opposite sense if established routines for its siting are not also broken up. Mr. Browne makes a detailed examination of what sort of furniture this particular streetscape will have to accept, and makes positive proposals for siting and combining it in such a way that it contributes to the desired effect.

324 House in Highgate, London: Architect, Erhard Lorenz

329 Georgian Sculpture From doorcases and fireplaces upwards, English architecture of the eighteenth century made extensive use of the carver's art, and many famous sculptured monuments were, ultimately, designed by architects. In this miscellany of notes on Georgian sculpture, Mrs. M. I. Webb examines the collaboration of *Architect and Sculptor* from Gibbs to Athenian Stuart, and from Roubiliac to the younger Scheemakers; Professor Nikolaus Pevsner raises the problem of the elusive *Victor Sederbach* who executed the unique figures in Sanderson Miller's new entrance hall at Lacock Abbey; and Rupert Gunnis unravels the mystery of *The Carters*, father and son once thought to be the same person, who would, in that case, have been over seventy when he carved the famous monument of Speaker Chute at the Vyne.

335 Three Interiors by John and Sylvia Reid

338 Interiors: M/S Princesse Margretha: Architect, Kay Korbing

340 An Early 14th Century Roof by J. Quentin Hughes Most English chapter houses of polygonal form have a central column; York does not, and its builders were thereby faced with a roofing problem of a magnitude rarely encountered in Gothic architecture. In consequence they produced a masterpiece of mediaeval carpentry that ante-dates the only comparable work—Ely Octagon—by a clear generation, and is also the earliest provable piece of large-scale off-site prefabrication of the period. Dr. Hughes's researches have found expression not only in words, but also in a magnificent model of the roof-structure which forms the frontispiece to this article, and was also shown at the last *Triennale di Milano*.

343 Current Architecture

Miscellany

347 Books

SUBSCRIPTION RATE: The annual post free subscription rate, payable in advance, is £3 8s. 0d. sterling, in U.S.A. and Canada \$10.50, in Italy Lire 6940, elsewhere abroad £3 10s. 0d. Italian subscription agents: A. Salto, Via Santo Spirito 14, Milano; Librerie Dedalo, Via Barberini 75-77, Roma. An index is issued half-yearly and is published as a supplement to the REVIEW.

THE ARCHITECTURAL REVIEW

9-13 Queen Anne's Gate, Westminster, SW1 . . . Whitehall 0611

FIVE SHILLINGS



Two strokes of uncommon boldness with regard to a piece of history's heritage mark the rebuilding of the Maxburg site in Munich. Firstly, the decision to redevelop the space occupied by the bomb-shattered castle as a modern pedestrian precinct, instead of merely restoring the old work; secondly, the retention of Wendel Dietrich's tower, built in the 1580's, as a staircase for the new buildings (opposite) not as a museum piece. It is a living memento, not a dead monument. Further information about this lively redevelopment scheme by Theo Pabst and Sepp Ruf will be found in a note in *Miscellany*.

J. M. Richards

MAN IN A HOT TIN BOX

One simple fact continues to nullify both the efforts of the road engineers and the arguments of those who insist that our road system must everywhere be enlarged to cope with modern traffic: the fact that the more road-space you provide the more motor-cars arrive on the scene to take advantage of it, so that from the point of view of congestion you are back where you started. This is a problem America in particular is having to face today, but America is postponing acknowledgment of the fallacy that the building of roads can by itself out-distance the manufacture of motor-cars, by building roads, allowing them to be flooded with motor-cars, and then building more.

Which she has the space to do. We have not; if we follow the same policy, the time will quickly come when the road-space occupied by motor-cars, moving or stationary (mostly stationary), will take up so much of the total that all territorial development will come to a standstill.

So what about an alternative policy to that which encourages more motor-cars: one which discourages them as energetically as possible? This essay is an examination of the arguments in favour of such a policy. It may sound like a completely reactionary policy, but it is not. It would be reactionary if it represented a retreat from the frontiers that progress has pushed forward on society's behalf, or if it was motivated by a wish to pretend that motor-cars hadn't come to dominate the social and physical scene—that is, by nostalgia for the peaceful days before motor-cars happened.

But planning to make any phenomenon (including the motor-car) an asset, not a menace, to society is progress rather than reaction, and the one thing we can say about the way we have allowed the motor-car, which came into being as no more than a useful

contrivance, to acquire its present disproportionate influence on our lives, is that it is the negation of planning. What we have to examine is the fallacy that the multiplication of the private motor-car is one of the given factors that planners must accept and plan for. It is not. Motor-cars are simply an artifact of our time, which society can employ in great or small numbers, according to how they suit society as a whole.

There is a clear parallel between planning for motor-cars and planning for houses. In each case the idea of planning in the interests of the community—especially the community without much expendable ground-space—involves bringing into a closer relationship units which without planning scatter themselves too widely, in order to create cohesion. In the case of housing we try to progress from separate villas swarming out into the countryside to a more organized pattern of terraces, squares and the like, and of blocks of flats, thereby freeing ground-space for other purposes. The private car, spreading itself more widely than our available ground-space can afford, is surely the exact equivalent of the single villa, and the equivalent of bringing houses into more compact groups is perhaps to make more use of public transport, but that parallel we must discuss in a moment.

Just as with houses, it is for society, and the planners to whom society entrusts the task of providing whatever controls it is willing to accept, to decide how far the individual motor-car should be allowed to spread. Planners, as we have found, can do little more than indicate to society what alternatives to existing practices there are. They have shown up the imbecility of allowing little houses to be scattered everywhere, at the whim of the house-owner but to the detriment of the community and, as a result of the public beginning to accept their arguments, we are at last building more compactly and passing legislation that helps us to insist on everyone doing the same. The planners could, and should, also show up the imbecility of allowing free rein to the individual motor-car, so that society can take action. It cannot, however, act effectively until ordinary people understand what the fight is against. The trouble about the motor-car is that it has been elevated from a convenient piece of machinery into a social symbol, and we have thus let it get outside the system of control by means of which we normally ensure that our various machines are our servants not our masters.

We have lost any judgment about the relative value of motor-cars compared with the difficulties they create, because over several generations they have been built up as the yardstick of individual success and as the best creators of self-esteem, and have thus been given an inflated social and psychological value that has no connexion with their utility as transport machines. This has come about through several causes. One is the habit of regarding motor-cars as a symbol of prosperity. Another is pressure from the motor-car industry, which to keep itself prosperous has to persuade the public of the importance of not only owning a motor-car (or several motor-cars) but of getting a new model each year, with the result that, anyway in America, the discarded motor-cars, the space they take up and the visual

squalor they engender, are becoming almost as much a problem as parking the ones still in use. America, however, having space to spare, has hitherto been able to absorb this multiplication of motor-cars. Europe cannot, and the fact that it tries to do so is one of the most destructive examples of Europe's recent tendency to imitate American ways because of the glamour of American prosperity and because of its admiration for America's creative energy, whether American ways suit home conditions or not.

But there are deeper and more personal reasons than these for the all-pervading, uncritical, cult of motor-car ownership. The act of driving a car is one of the few outlets available to most people for their need to exercise personal power and assert their individuality; it is sometimes even an outlet for their sense of fantasy. Skill in driving and roadmanship, allied with the glamour of the superior vehicle, enable the ordinary person to express his innate sense of craftsmanship. Connoisseurship of cars and driving has indeed a mystique about it that is to some extent aesthetic in origin.

But such a mystique is irrelevant to the proper role of the motor-car. It is a long time since the individual operation of machines in a factory became out of date. If only from the point of view of conservation of energy, the introduction of power looms, power presses and the like was one of the biggest moves forward out of the handicraft era. The fashion for individual motor-cars for urban use, often glibly described as an essential ingredient of our mechanized world, is in fact just the opposite: a retreat into the handicraft era. Nor can it be regarded as a very advanced form of social organization when the time and energy of the occupant of each unit of what is, in effect, a mass migration city-wards every morning, is separately taken up by the task of propelling that unit. It is utterly primitive and wasteful, especially when the units are situated almost head to tail, as constantly happens. One really powerful unit at the front of the queue could pull them all, making what used to be called a 'train' before our fairly well organized transport system allowed itself to be fragmented; not, I repeat, in the interest of efficiency but as a means of relieving the psychological frustration I have just described. The degree of waste is indicated by the fact that one person riding in a private car occupies, on an average, seventy square feet of roadspace, whereas each person in a bus, even when it is only half-full, occupies seven square feet. And this is in addition to the waste of energy involved in everyone doing his own driving. Of course some people enjoy driving, even when it's the same traffic-bound journey every day, but surely the need for an outlet for the personality such as driving provides could be provided in some other, less anti-social, way.

The obvious corollary to all this, and the process that would do most to bring about the desired result (though it would have to be accompanied by a psychological process of dispelling the glamour of the private motor-car) is the improvement and *re-glamorization* of public transport. Public transport has been vulgarized and made squalid by bad conditions and obsolete equipment. If my parallel between housing and transport is accepted, not only do people have to be educated to prefer public transport in exactly the same way as they have to be educated out of their prejudices in favour of isolated villa ownership, but the process must compete with difficulties equivalent to the resistance to flats that was created by flats becoming associated with obsolete slummy tenements. Public transport suffers from the same associations. But this can be put right by showing how comfortable, efficient and glamorous it can be—and adventurous. There are no end of possibilities: the mono-rail is a typical example. And to experiment with them should appeal to the idealist in us, because the ultimate aim is one of social betterment, not one of social fragmentation like the improvement of individual motor-cars and the provision of more facilities for them.

The task must be to put across the idea that public transport provides the proper means of getting in and out of cities and moving about inside them; not by the use of compulsion—measures like forbidding private cars to come nearer in than the suburbs would not work at present because they run too much contrary to popular desires—but by persuading people that organized transport, like organized anything else (from athletic competition to orchestral music) is that much further along the road to civilization than unorganized. It is no valid objection that it gets more and more difficult for public transport to pay its way. There are plenty of other public services that society as a whole has to provide for its members because they are considered necessary, even though they don't balance their budget internally: the sewage system, for example, or the health service—to say nothing of the Royal Navy. It is a matter of balancing the cost of a good public transport system against the cost of all the wasted effort and wasted time that our present over-use of private transport creates. We don't complain that the sewage system doesn't make profits and that therefore we would be justified in dealing with sewage as individuals.

If public enthusiasm for public transport were engendered by such means, what a difference would immediately be shown in our towns and cities. Their street-pattern, on which their architectural character depends, and which is nowadays condemned as inadequate, would be found to be perfectly adequate; there would be no need to destroy and disrupt them by road-widening schemes or blast them open with new highways. The parking problem, with all its frustrations, would disappear. We would no longer need to view our town architecture across a foreground of vehicles.

The privately owned car would still of course have its place—for private journeys and especially for travel in the country; the equivalent of the country

cottage. But the gregarious human being could surely—at least it is worth trying—be persuaded to make travel to work and about his cities (which are after all, an expression of his gregariousness) a co-operative effort, and take pleasure in doing so. Provision of the means of doing so would be far more worth while than expensive and unnecessary multi-storey and underground car-parks, which spread the very disease they are designed to cure. But let me repeat, this remedy cannot be forced on the community. In its present mood it would only interpret criticism of motor-car worship as an attempt to put the clock back. First of all the false glamour of the motor-car must be destroyed.

Perhaps the tide is already turning. There are signs that our failure to deal with the motor-car sensibly, and stop the havoc it is causing to the shapeliness, habitability and the very existence of our cities, is already causing people to question the validity of the assumption that all planning must make way for the motor-car instead of, sometimes, the motor-car for planning.

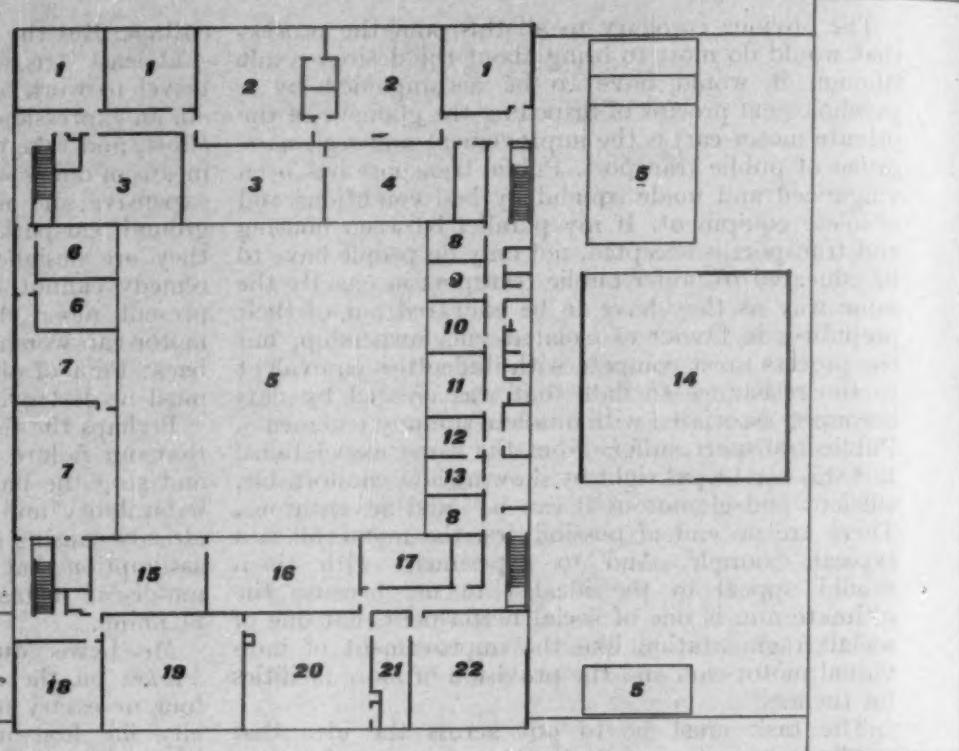
Mr. Lewis Mumford, writing recently in the *New Yorker* on the subject of the motor-car, suggested four necessary measures to 'prevent it from making city life first unendurable and finally impossible': improving public transportation within the city; replanning both central and residential neighbourhoods to encourage pedestrian movement and restrict motor-car access; designing smaller cars and restricting the use of huge cars within the city; and relocating industry and business on the edge of the city to encourage cross-city traffic to take the place of the daily ebb and flow from outside.

These are all useful ideas, on which planners are already working with varying degrees of success. But unless the validity of multiplying privately owned motor-cars is itself questioned, their success will never amount to much. Mr. Mumford's analysis implies this, although he does not draw the only possible conclusion (that the passion for having a private motor-car to play with is a form of social disease—or at least an irritant symptom of social disease) when he ends with the unanswerable statement that 'the main issue is that the right to have access to every building in the city by private motor-car, in an age when everyone possesses such a vehicle, is actually the right to destroy the city... our highway engineers, in defiance of the lessons the past should have taught them, are butchering good urban land as recklessly as the railroad builders did in laying out their terminals and marshalling yards. But the notion that you can free the motor-car from all restrictions in the city without devastating the city's living spaces is a delusion that will probably cause a lot more damage before it dies.'

But perhaps destroying the city is one of the things our time is content to do; perhaps the city is an out-of-date conception. One would be happier in accepting this if there were any signs of some other organism being evolved to replace it—something that would facilitate, not discourage, social contact—something that did not involve every member of society spending more and more of his life shut up by himself in a hot tin box.

First Floor

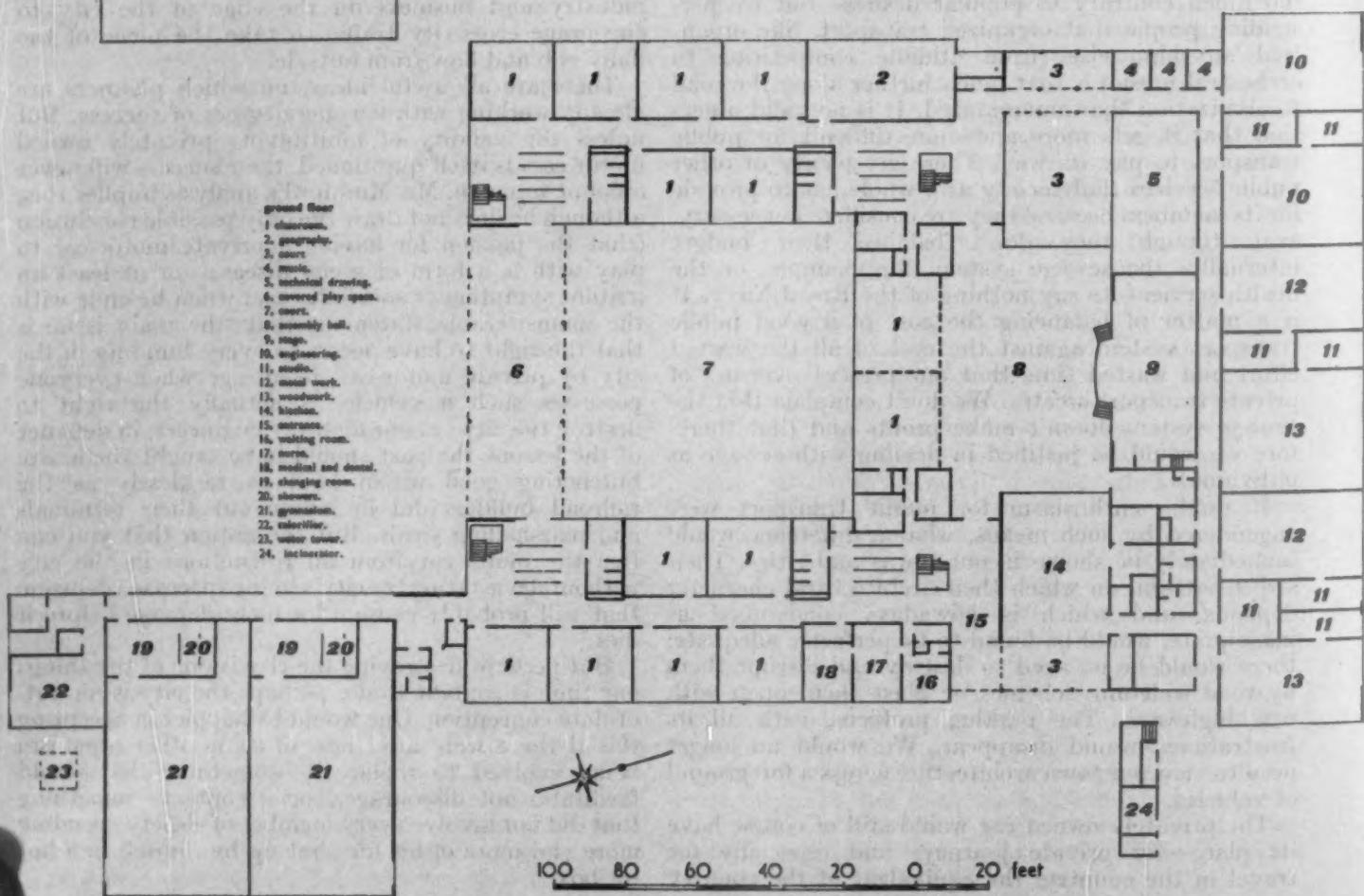
1. classroom.
2. art room.
3. history.
4. geography.
5. court.
6. study.
7. library.
8. headmaster.
9. deputy headmaster.
10. deputy head.
11. headmaster.
12. secretary.
13. general office.
14. assembly hall—upper part.
15. lecture room.
16. staff common room.
17. meeting room.
18. engineering lab.
19. physics and engineering lab.
20. chemistry lab.
21. preparation room.
22. biology lab.
23. water tower.



SCHOOL AT WANDSWORTH, LONDON

ground floor

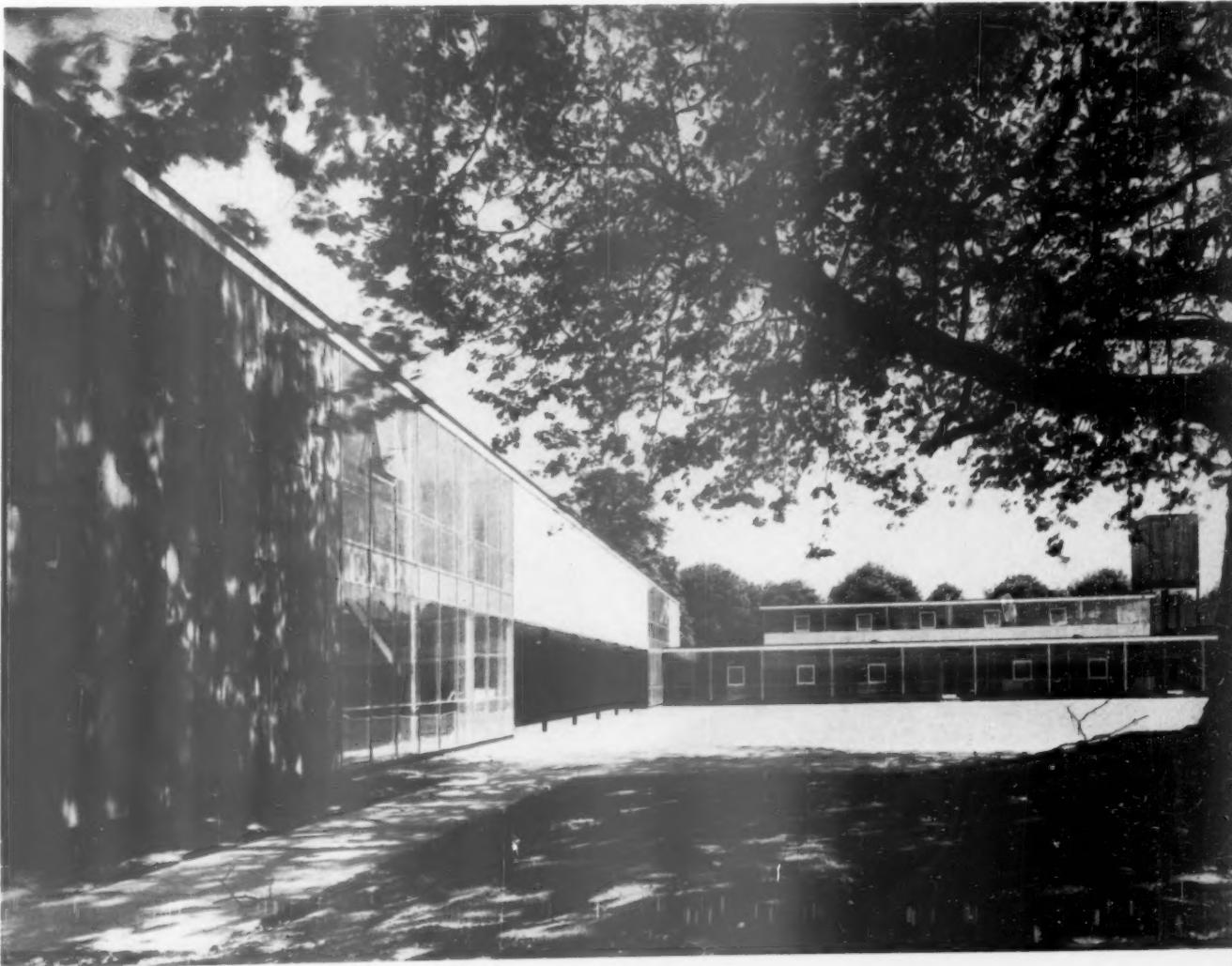
1. classroom.
2. geography.
3. court.
4. music.
5. technical drawing.
6. covered play space.
7. court.
8. assembly hall.
9. stage.
10. engineering.
11. studies.
12. metal work.
13. woodwork.
14. kitchen.
15. entrance.
16. waiting room.
17. nurse.
18. medical and dental.
19. changing rooms.
20. cleaners.
21. gymnasium.
22. caretaker.
23. water tower.
24. latrine.



SCHOOL AT WANDSWORTH, LONDON

ARCHITECT **SIR LESLIE MARTIN**-former architect to the London County Council
architect-in-charge **J. M. Kidall**

1, view looking east towards the gymnasium with water tower on the right and covered play space on the left.



This school for 850 boys is off Trinity Road, Wandsworth, approached from the south through the LCC Fitzhugh Housing Estate. (AR, Nov., 1956.) The site was formerly the playing fields of the Royal Victoria Patriotic School

and has a slight fall to the north with several fine trees which have been kept. The school was limited to two storeys in order not to compete with the adjacent 11-storey point blocks. The old school will eventually be



2



3

demolished except for the chapel and swimming pool which will be reused.

The classroom block consists of two double-banked wings facing east and west, linked on the north by two classrooms at ground level with administrative rooms over and on the south by the library at first-floor level only, thus forming an inner courtyard. The upper floor of the classroom block consists mainly of larger rooms such as laboratories, art rooms, etc., with no lateral circulation, approached by short corridors from four

- 2, on the facing page, view from the chapel looking over the playground to the covered play space with library above and the gymnasium on the right.
- 3, on the facing page, the classroom block with part of the engineering block on the left. For the classrooms the cladding generally is glazed curtain walling with coloured panels as upstands at first floor level and asbestos sheets faced with strips of western red cedar at ground level.
- 4, one of the four staircases leading to the upper classrooms. The floor has a terrazzo finish in two tones of grey and the treads to the stairs are of hardwood.

SCHOOL AT WANDSWORTH, LONDON

staircases, one in each corner of the rectangular block. The workshops which are approached through the assembly hall or under a covered way on the west are all housed in a single-storey block facing north and consist of engineering, metalwork and woodwork shops and technical drawing office.

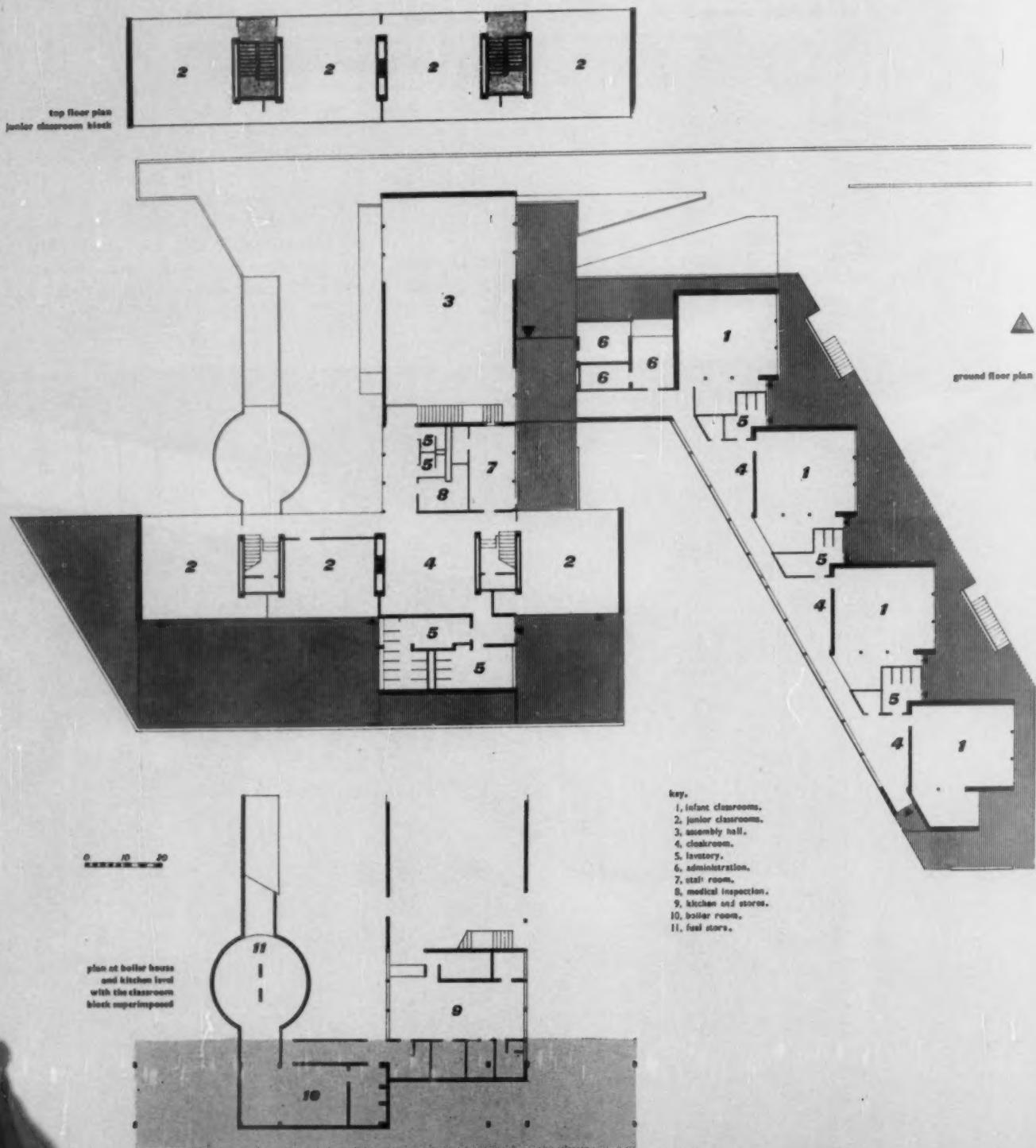
All blocks have a light prefabricated steel frame to a 40-in. module. In the classroom block the stanchions are 5-in. square box sections and all first-floor beams are 16-in. deep throughout with perimeter stanchions and main floor and roof beams at 13 ft. 4 in. centres. Secondary floor beams are at 3 ft. 4 in. centre at first floor carrying precast r.c. floor slabs. The roof is 3-in. wood-wool slabs carried on steel top-hat sections spanning

between main roof beams, and finished with $\frac{1}{2}$ -in. screed and three-layer bituminous roofing felt. The cladding generally is glazed curtain walling with coloured panels as upstands at first-floor level and asbestos sheets faced with strips of western red cedar at ground level. The solid infill is of either oatmeal or black coloured concrete slabs bolted back to the frame. In the assembly hall and gymnasium 8-in. and 4-in. columns were used carrying specially designed roof beams. All stanchions in the two-storey portion are protected against fire by a precast flexible vermiculite concrete casing 1-in. thick. Heat is provided by low-pressure hot water from a district heating unit on the Fitzhugh estate and piped through an underground duct to a calorifier room in the school.

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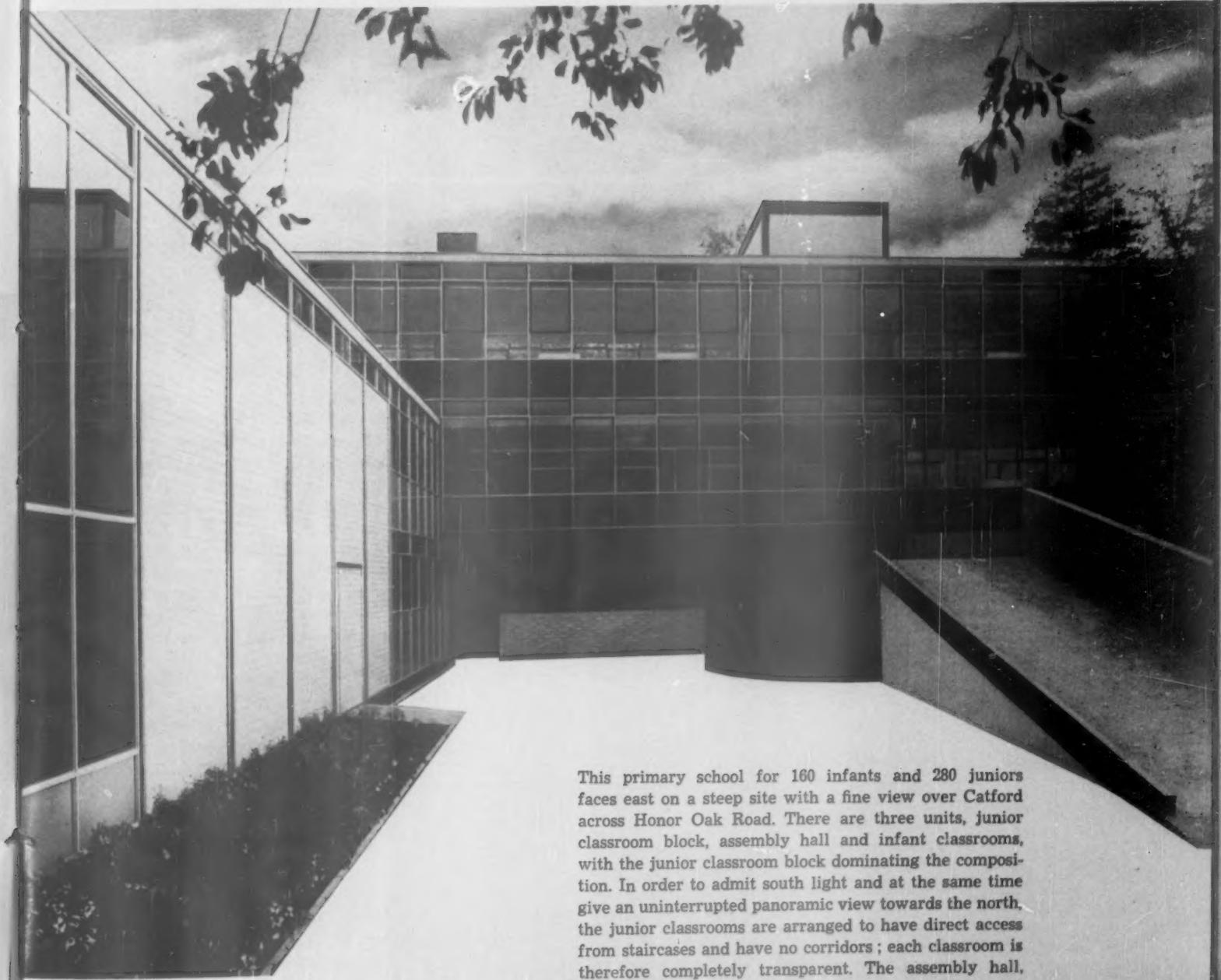
SCHOOL AT LEWISHAM, LONDON



ARCHITECT **PETER MORO**

assistant architect **Michael Mellish**

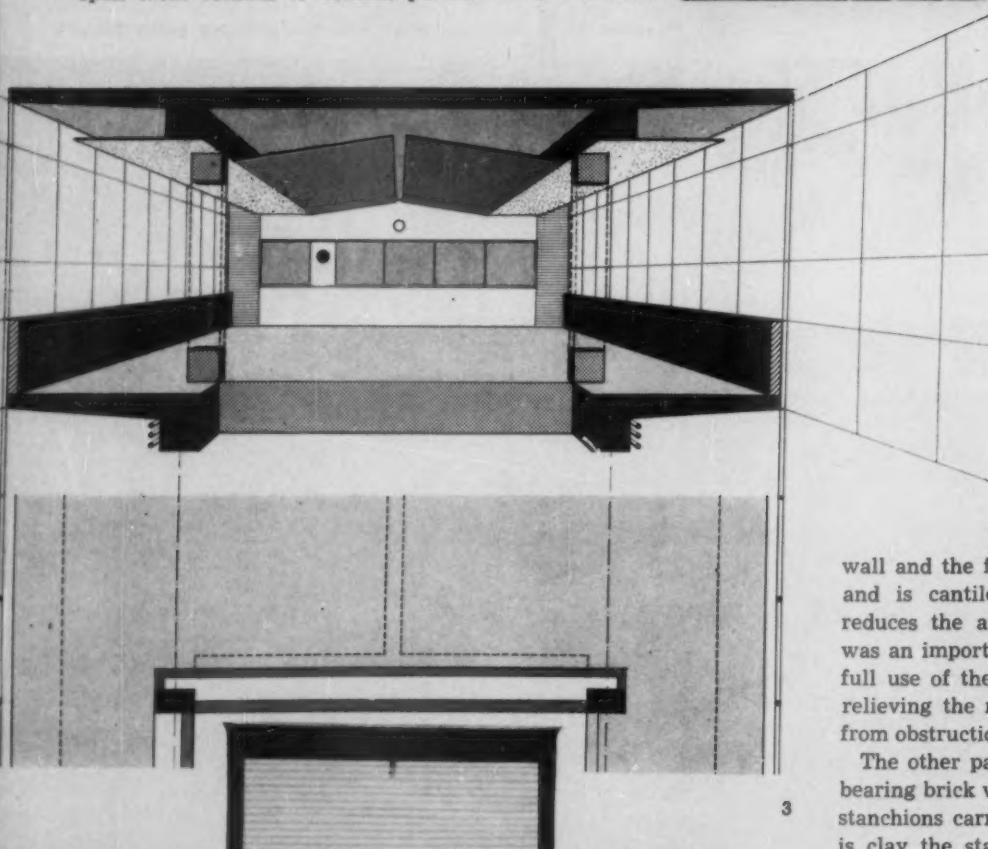
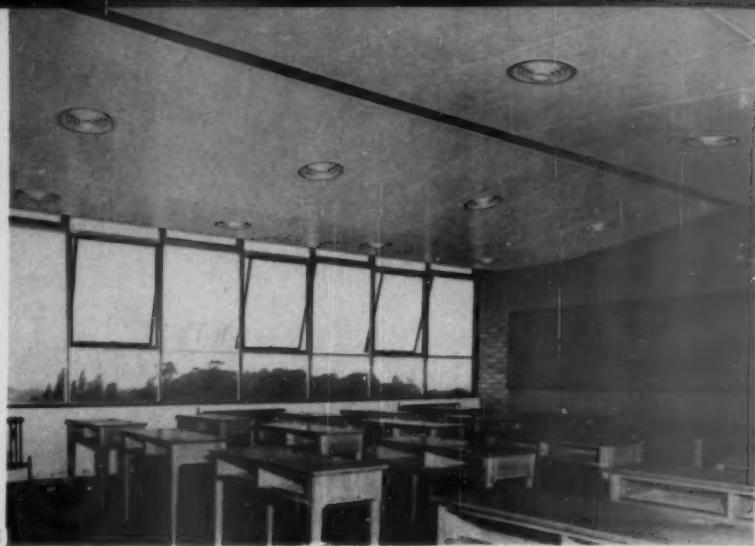
1, the junior classroom block from the north with the assembly hall on the left.



This primary school for 160 infants and 280 juniors faces east on a steep site with a fine view over Catford across Honor Oak Road. There are three units, junior classroom block, assembly hall and infant classrooms, with the junior classroom block dominating the composition. In order to admit south light and at the same time give an uninterrupted panoramic view towards the north, the junior classrooms are arranged to have direct access from staircases and have no corridors; each classroom is therefore completely transparent. The assembly hall, which also serves as a dining hall, is directly connected to the kitchen, which is lit from two sides and cross-

ventilated, and linked to the infant classrooms by the entrance hall and administration section. The infant classroom wing is on one level without internal steps. The classrooms are staggered and are easily recognisable as individual units; this staggered arrangement provides, internally, widenings to the corridor which serve as cloakroom areas and, externally, small protected teaching spaces. The classrooms enjoy a fine view towards the east and get south light through clerestory windows. The schoolkeeper's house is placed at the entrance to the school at the bottom of the site.

The junior block is of r.c. frame construction. The framework is set well back from the façade and its columns are contained within the staircase enclosures and partition walls. The classrooms being square, beams span from column to column parallel to the window 2



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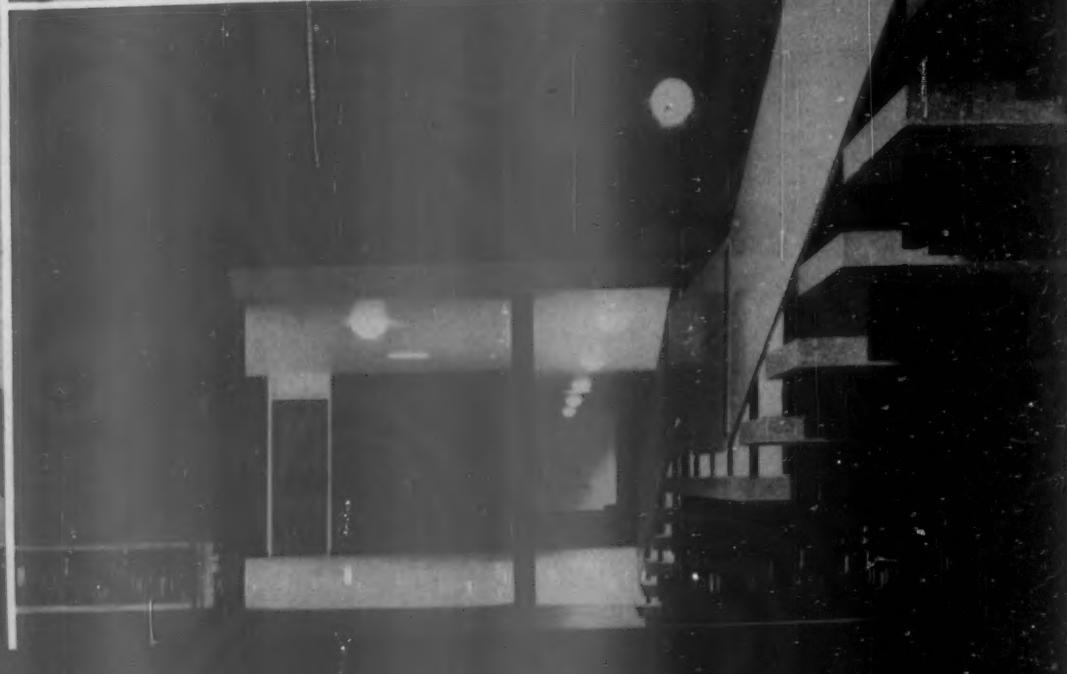
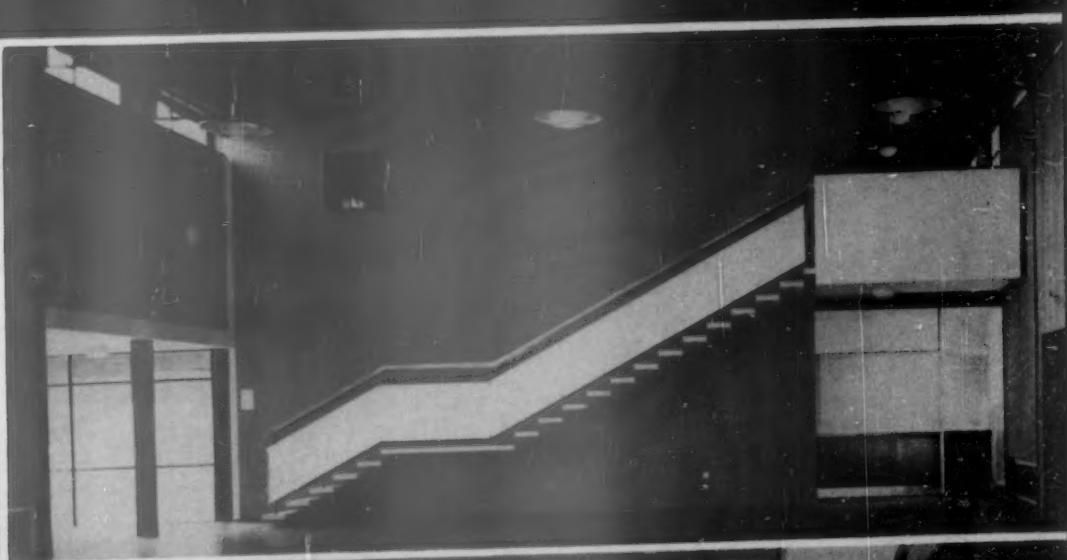
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2. junior classroom showing stanchion-free wall.
3. perspective and portion of plan showing the construction of the junior classroom block and below. detail view of the south elevation showing the penetration of the internal staircase block through the roof to form the tank house.
4. the assembly hall from the west and the junior classroom block on the right.
5. staircase detail with prefabricated cantilevered terrazzo treads. The panel is painted plywood and the handrail is mahogany.
6. the stair leading from the assembly hall to the classrooms above. The wall is painted cherry red.
7. looking from the assembly hall across the entrance hall towards the infant classrooms.

wall and the floor slab itself spans from beam to beam and is cantilevered beyond them. This arrangement reduces the amount of reinforcement required, which was an important consideration at the time, as it makes full use of the contraflexure, i.e. the cantilever portion relieving the main span; thus the window wall is free from obstruction by columns.

The other parts of the school are constructed of load-bearing brick walls flanking window walls formed of RJS stanchions carrying welded steel trusses. As the ground is clay the stanchion bases rest on r.c. ground beams which in turn are carried by bored piles. The steel frame is filled in with glazed curtain wall units and where complete solid infilling is required slatted plywood panels are used. The opaque coloured glazing is cast glass with ceramic enamel paint fired on to the back. The aluminium parts of the curtain walling are left untreated and all steel members are painted black. Apart from the junior classroom block roof, which is r.c. slab, the roofs are reinforced wood-wool slabs carrying lightweight screeds and are finished with three-ply felt roofing. The fairfaced brickwork is Uxbridge flint bricks. Central heating is by solid fuel boilers, with the fuel store in the shape of a drum; the coal lorry drives up a ramp and then shoots the fuel into the fuel store from above. There is an external mural by John Verney at the entrance and a mobile and wood relief by Victor Pasmore in the courtyard overlooked by the staff room, and facing the entrance hall, and a wood relief by the same artist at the junction of the administration and infant corridors.

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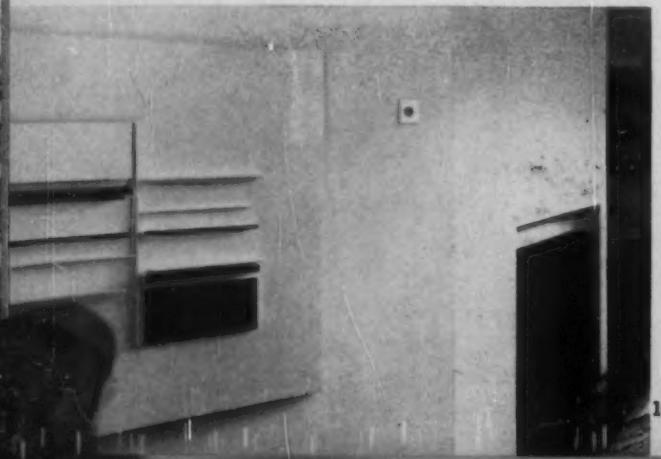
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SCHOOL AT LEWISHAM

8. mobile by Victor Pasmore.
 9. the entrance showing part of a mural by John Verney; in the foreground is a Camberwell bo lard.
 10. wood relief by Victor Pasmore in the corridor of the infants' wing.



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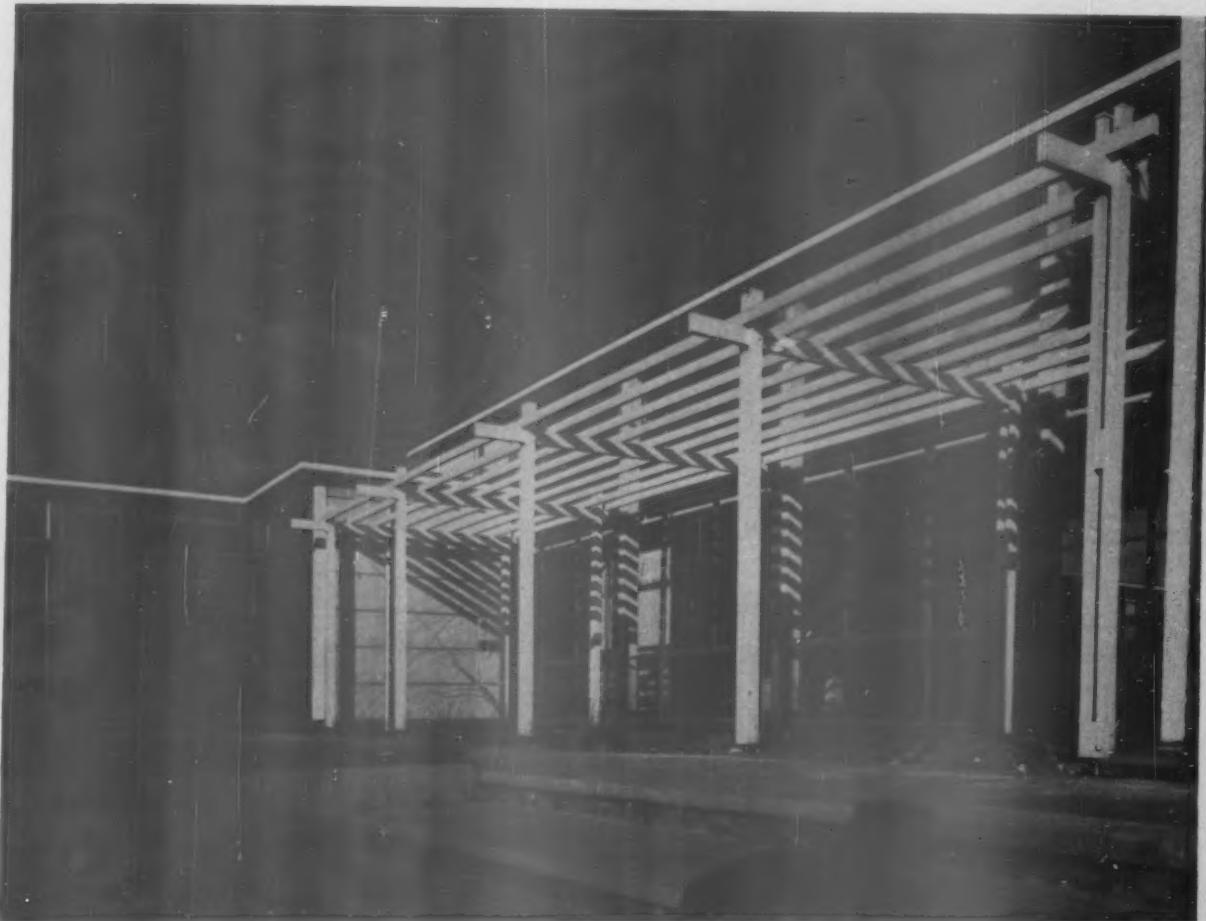
This infant school is planned to accommodate 240 children between the ages of five and eight years: it is sited on a new housing estate between the old town centre and the New Town, with an entrance from Pound Avenue. The construction is the standard Hertfordshire steel frame and curtain walling, using the 8 ft. 3 in. module. Economies were achieved by virtually dispensing with corridors and by reducing the height of the assembly hall from the usual 16 ft. to 12 ft. The latter economy was experimental but has since been repeated in other schools.

The property store, which is also used as a stage, is made up of ply-faced stud frame on light metal supports and is coloured in an abstract pattern. A pierced screen wall of Burwell white bricks has been placed around the kitchen yard, and brick has been used elsewhere as walling in contrast to the standard cladding blocks. An attempt has been made to avoid the subtopian effect of chainlink fencing by substituting standard wrought iron park railing. Although this is slightly more expensive, in a case where frontages form part of the street, the results fully justify the expense. The play-courts are attached to the school and there is a paved semi-courtyard on the east side incorporating a shallow pool.



SCHOOL AT STEVENAGE, HERTS.

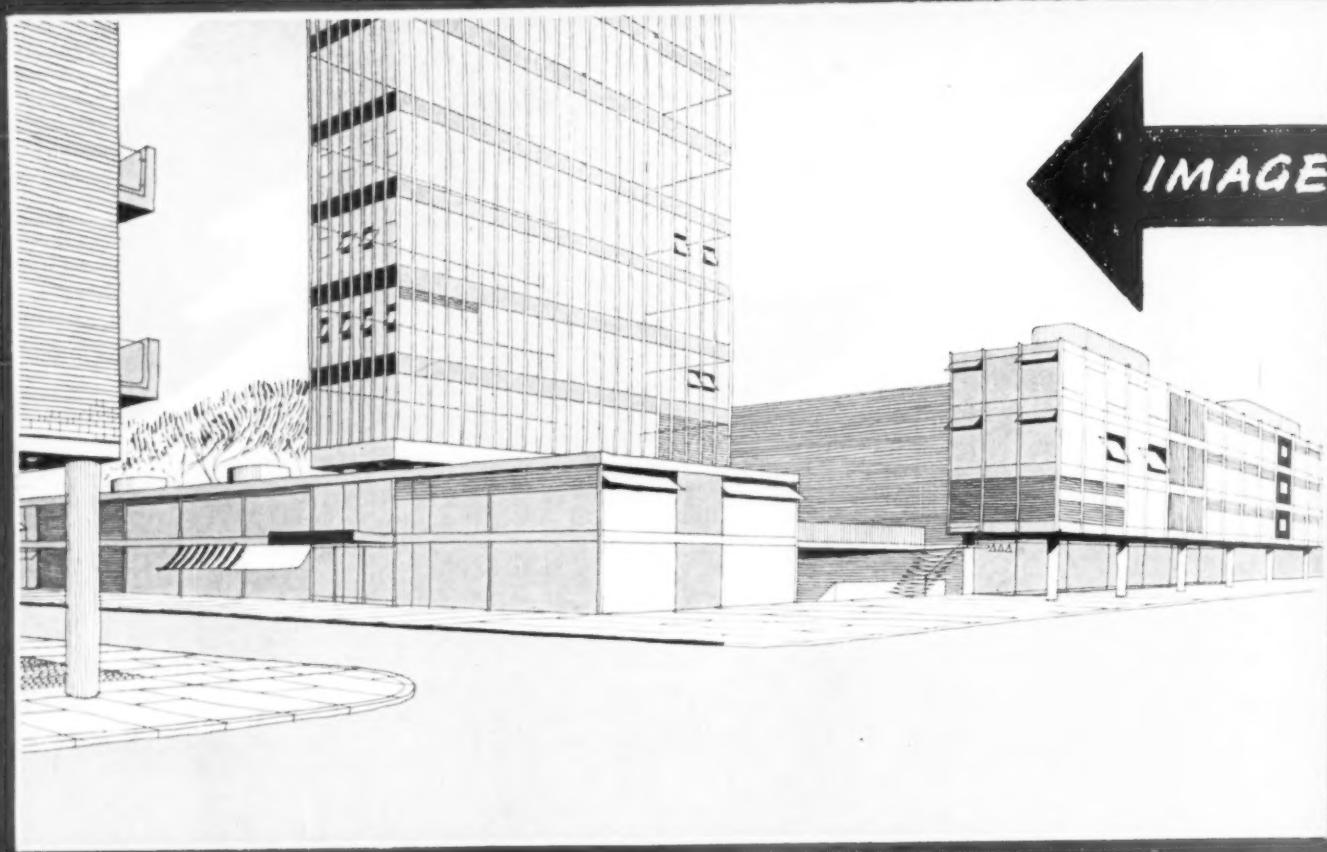
ARCHITECTS JAMES GIBBITT AND PARTNERS
ASSOCIATE ARCHITECT G. H. ASLIN



1. the pergola on the west side of the assembly hall, which is on the right. The small square block projecting at the end of the pergola is one of the two cloakrooms serving the assembly hall and dining area.
2. a view across the pool in the main play-court towards the assembly hall. The architectural effect of keeping down the ceiling of the hall in twelve feet can be appreciated in this view.



3. the pierced brick screen-wall of the kitchen court. Although standard Hertfordshire construction was used for this school, brick walling has been employed to give variety to the elevations.



The clear cut IMAGE of urban rebuilding (top of facing page) which the architect presents to the public (see R. A. architectural room) is just wishful thinking. The REALITY, so long as the various authorities are allowed to litter the street with unco-ordinated objects is more likely to be the man-made jungle shown below it, over which at present the architect has no control whatsoever.

Kenneth Browne

STREET SCAPe WITH FURNITURE

THE ATTACK ON THE CORRIDOR STREET AT NOTTING HILL GATE

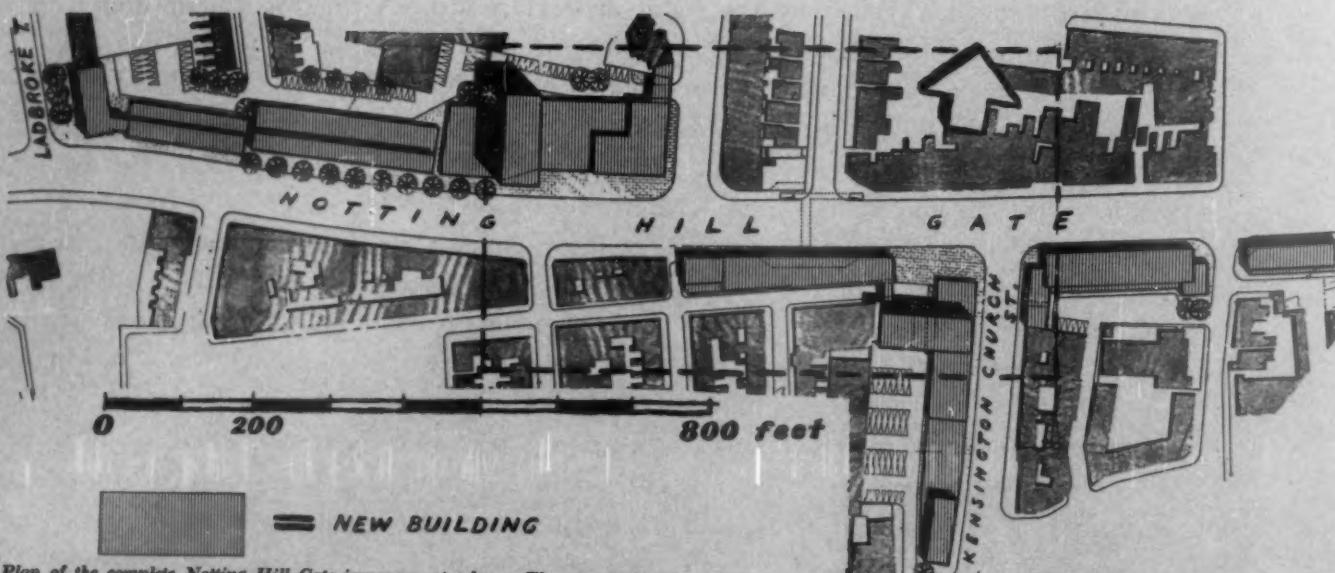
The chance to rebuild a large stretch of shopping street in London at one go and by one architect doesn't happen very often. For this reason the Notting Hill Gate Improvement Scheme, as it is optimistically called by the L.C.C., is an unusual opportunity. Especially so, since this has been a busy shopping area for a long time and has evolved a very colourful cosmopolitan character with plenty of pubs and cafés.

Such an opportunity raises the fundamental question—what should a modern shopping street be like? What are the right physical conditions for making shopping and mixing with other people a pleasure instead of a penance and at the same time making the street visually coherent? In the first place pedestrians need protection physically and visually from the traffic; especially so in the case of Notting Hill Gate which is a main traffic artery. They need to be able to get from any part of the shopping area to another without crossing the traffic stream, therefore subways are essential. If they have arrived by car, they need adequate car parks on the perimeter with easy access to the shops, and though shoppers don't need complete segregation, for traffic movement is all part of the business, they must not feel in danger of being pushed under a bus at any moment from an overcrowded footpath. For this reason enclaves, partial enclosures, shopping arcades and alleys and areas of wide pavement are needed. These will also serve the other need for somewhere to take time off for a smoke, rest feet, consult shopping lists, read the paper and watch other people, all better done sitting down (even paintings in a gallery look better that way), also somewhere to eat and drink out of doors. This means that the draughty misery of the traditional corridor street through which the shopper is sucked or blown must be avoided. The directional line of the street must be

opposed by breakbacks, piazzas, precincts, shop-lined alleys, areas of widened pavement which make these things possible and tempt the shopper to loiter, consider and select in comfort and their form should be emphasized visually by the floor pattern and by change of level.

So far, so good, but a further problem remains which has so far proved intractable and that is the disrupting effect on the street of unco-ordinated street furniture; the litter of unrelated, generally ill-designed junk with which our streets are festooned. The complexity, hurry and frantic improvisation of the modern way of life seem to have petrified in its street furniture and though attention has been concentrated recently on lighting standards, in fact, they are only part of the larger problem of street furniture generally. Nearly all the items need redesigning but even the individual pieces, such as the new bus shelters, which have been designed by well-known M.S.I.A.s are still litter if badly placed. What is needed is overall control by someone seeing the picture as a whole in order to limit the pieces, combine them and fit them into the streetscape. At present every street is littered with the old iron (or concrete) of at least half a dozen authorities acting on the maxim of 'damn you, Joe . . .' The Ministry of Transport is a particular offender in this respect, notoriously blind to the effect of its inflexible instructions on the appearance of the street; quite apart from the fact that its multiplicity of signs result in the motorist being so confused as not to see half of them and drive dangerously because he cannot watch the road. The municipal engineer, the police, the post office, the motoring clubs, etc., add to the jungle; all having their impedimenta to dump or hang somewhere and the result in the average street is chaos.

Somehow or other the whole thing has got to be simplified and in the case of Notting Hill Gate I suggest that in addition to choosing the best fittings available they should be tied in by pedestrian covered ways which not only unify them but emphasize the pedestrian enclosure, lead, shelter and rest the shopper and visually protect him from the traffic. Another campaign is needed to Clean Up the Streets and the new Notting Hill Gate would be a good place to start.

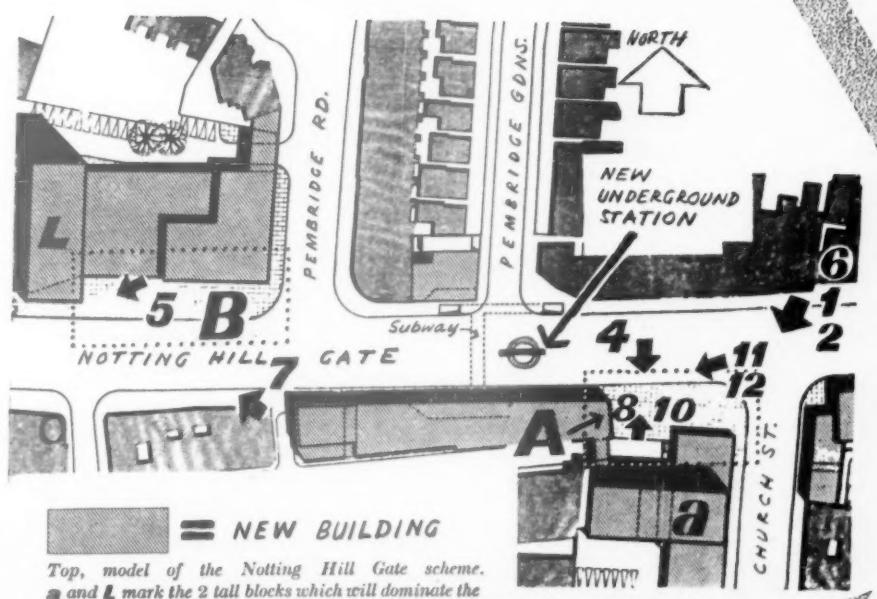
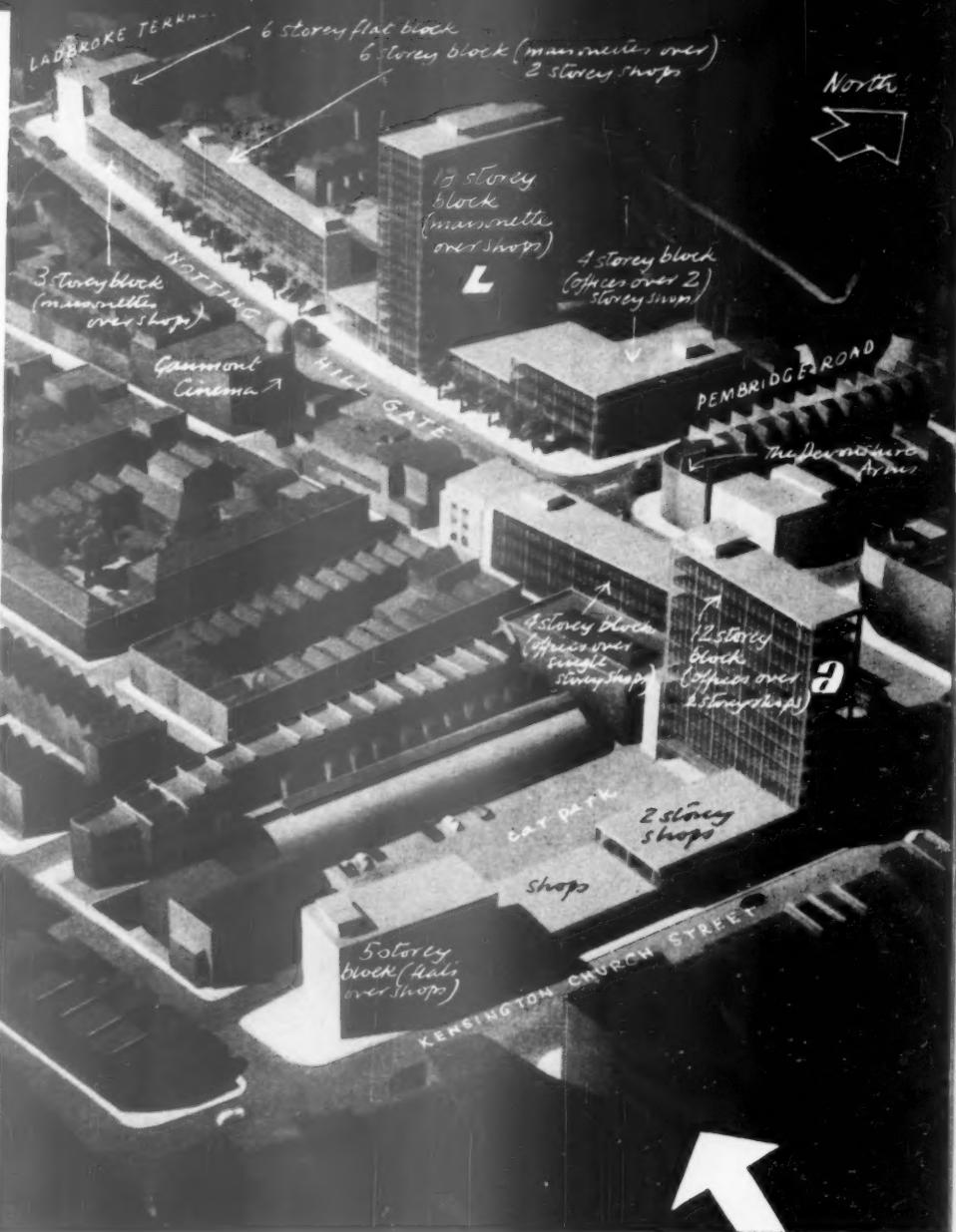


Plan of the complete Notting Hill Gate improvement scheme. The area inside the broken line is considered in this article and reproduced to a larger scale opposite.

The Notting Hill Gate Improvement Scheme* has come about as the result of an LCC road widening plan which has been in the 'pending' tray since 1910 but is now actually happening. It is aimed at relieving the frantic traffic congestion at this point where the east-west A.40 traffic (Marble Arch-Notting Hill Gate-Shepherds Bush) is crossed by heavy north-south traffic via Church Street and Pembridge Road (see plan). That it will in fact achieve this aim seems extremely doubtful since a maze of traffic lights will still be necessary; but traffic flow is outside the scope of this article. The immediate physical result is that for 600 yards along Notting Hill Gate itself buildings have been demolished on one side of the road and also for 150 yards down Kensington Church Street. In conjunction with this widening scheme London Transport are building a new Underground station under the road. This will replace the two existing stations (Central and Inner Circle) which are at present on opposite sides of the main road and invite you to risk your neck crossing the traffic artery if you want to change trains or shop on the other side. The subway of this new station with exits on either side of the road will provide a much needed link. However, a severe criticism must be made at this point. It is only half doing the job if a similar subway is not built leading to the area west of Pembridge Road, the most important area of the whole scheme and containing the tallest building (**L** on plan). If this is not done, and there seems no intention of doing it, the shopping territory will be bisected and makes nonsense. If it is provided, then the whole shopping street would be properly and safely linked and this effect of continuity would be reinforced if the subways were lined with shops and gave access to the basements of street level shops (viz. Piccadilly Underground).

The LCC as the planning authority should be praised for not accepting a corridor street of even height buildings which might have brought in greater returns in terms of £ s.d., but which would certainly have been deadly dull inhuman ones. They have made an attempt to get away from it by means of shaping and enclosure even if they have not gone as far as they would have liked. Having done so, they should now take steps to reinforce this with the street furniture and to underline enclosure by floor pattern and change of level.

* The architects for all the rebuilding above ground are Cotton, Ballard and Blow, acting on behalf of two development companies, and a model of their approved scheme (right), was shown at Kensington Town Hall in October 1957.



Top, model of the Notting Hill Gate scheme.

■ and **L** mark the 2 tall blocks which will dominate the area. Below, plan of part of the scheme showing, contained by dotted lines, the pedestrian areas **A** and **B** referred to overleaf. The numbered arrows show the viewpoints of the drawings in this article.



Pedestrian Space

Two areas here by their form combat the corridor street and cater for pedestrian enjoyment. The first is:— at the junction of Kensington Church Street and Notting Hill Gate where the pavement widens to 50 ft. The enclosure provided by the tall office block **a** (an excellent backdrop), the corner building **c** and the link block **d** affords the pedestrian a place to chat, drink and rest his feet; somewhere to meet friends, somewhere easily described. The more invitation there is (pub **f**, café **c**) the better. The space between **c** and **d** could be retained as pedestrian territory, in spite of the access below to a car park, by jacking it up to form a platform **g**, thus providing the interest of changing levels, an overflow from the café **c** with a good viewpoint and also a street entrance to the tall office block through link **d**. The paving here should echo the static, non-directional character of the place. A pedestrian covered way or canopy following the curb would complete the feeling of enclosure.

A

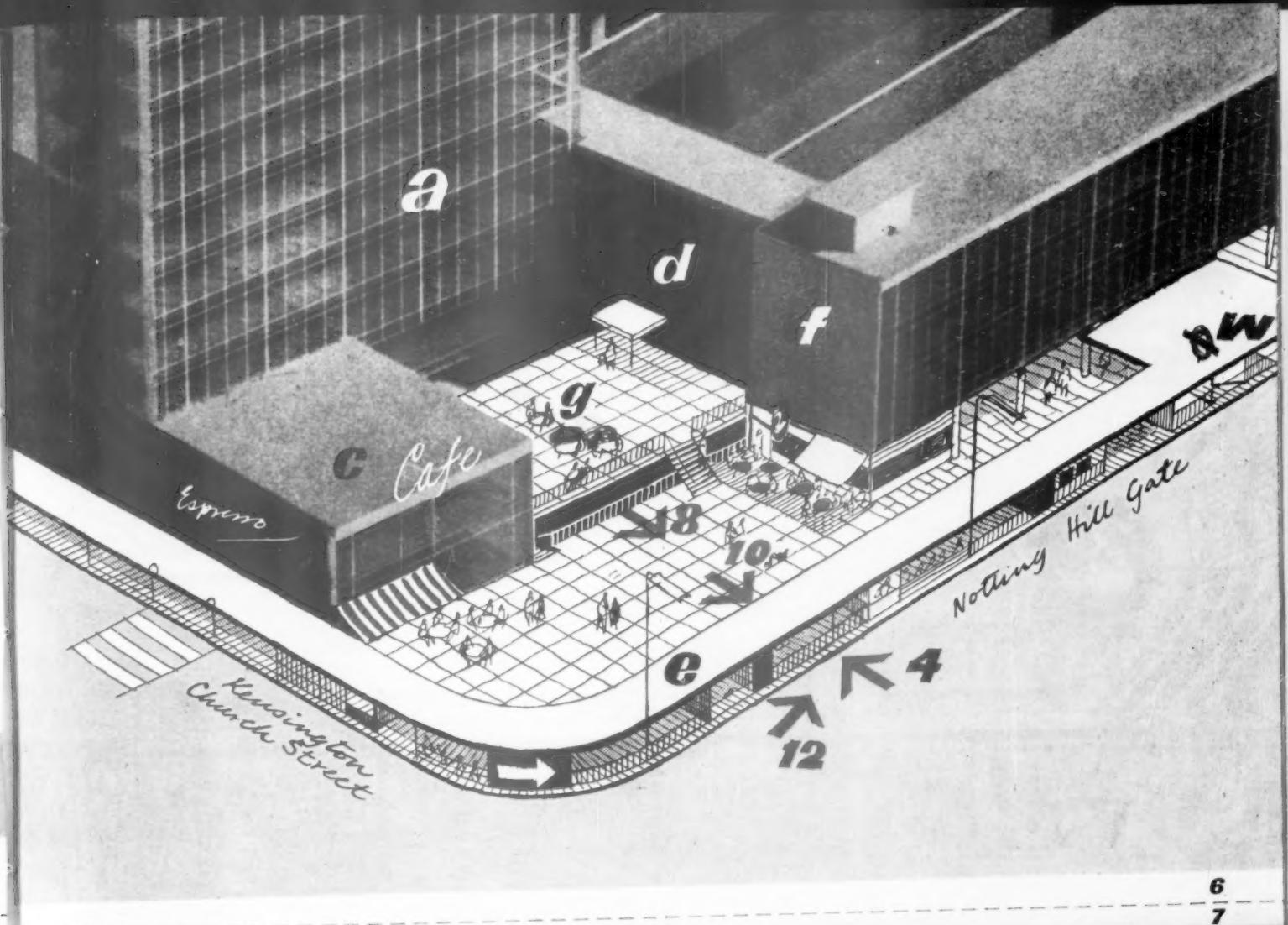


The second area is:—

where the 18-storey maisonette block **L** comes down at right angles to the pavement and in so doing breaks the passage-like feeling of the street. A 40-ft. pavement **O** gives ample space for sitting out and a row of cafés would be just the answer with as many gaily striped sunblinds and as much colour generally as possible.

This is the area which should be linked to the Underground and area **A** by subway, but isn't. The relaxing area should be distinguished from the footpath proper by change of paving, which should run contrary to the street line and emphasize that this is a place to stop. The banner shown linking the tall block **L** with the tower of the existing cinema opposite is to emphasize the point that somehow enclosure must be carried through across the street itself to knit the two areas together.

B





Pedestrian Space (contd.)

Back in area A, the drawing above looks out from enclosure and shows the kind of place the shopper will welcome. This is obviously a haven from the rush and shove of the footpath, a bit of a backwater into which he can eddy and relax for a bit, exchange gossip, sink a pint, have some

coffee or feed the pigeons. This is a good place to meet someone, a place you could describe. Plenty going on but no feeling that you must move with it. The pedestrian canopy seen in the background marks the limit of pedestrian territory and gives visual protection from the traffic without isolation.

Street Furniture

Here are some of the objects found in streets whose combined effect is visual anarchy. Completely unco-ordinated, as they are at present, they are just so much litter. Most of the things shown are in need of drastic redesigning anyway with honourable exceptions such as the lighting column (an improvement on the suspended horse-troughs and arty concrete sculpture so often seen), LPTB furniture, bollard, seat and litter basket.

9

[continued on page 823]



guard rail



switchgear boxes



refuge light



bus stop



lighting column



weighing machine



police call box



pillar-box



telephone box



kiosk



bus shelter



street map



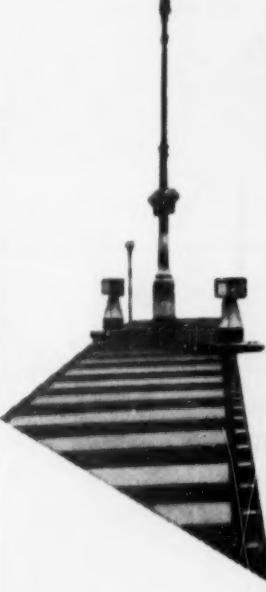
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MON-FRI
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traffic lights



zebra crossing
beacons, refuge,



fire alarm



timetable



traffic signs

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ROAD OBSTRUCTION
NOTTING HILL
ALTERNATIVE ROUTE
SHEPHERDS BUSH

CAR
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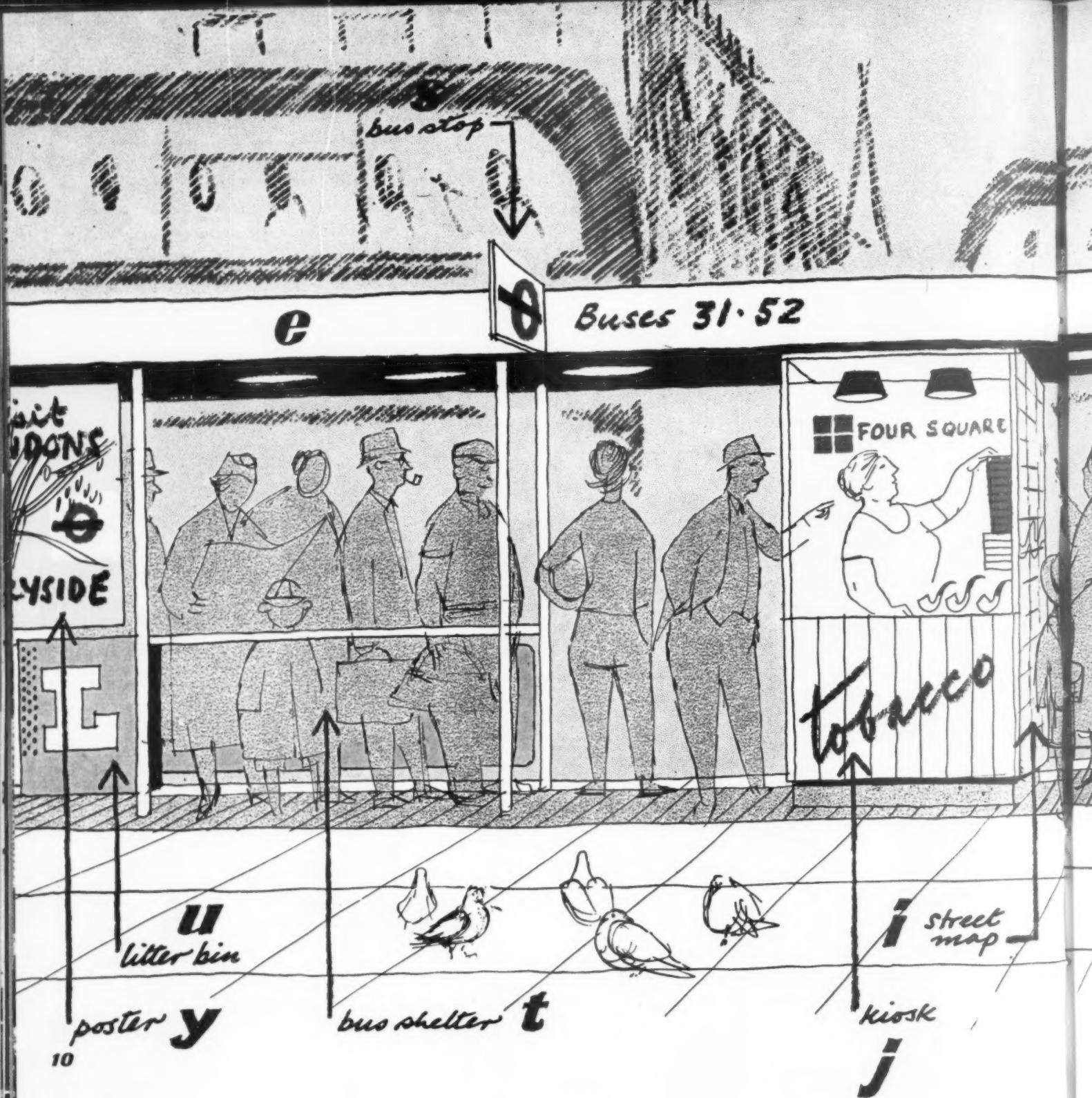
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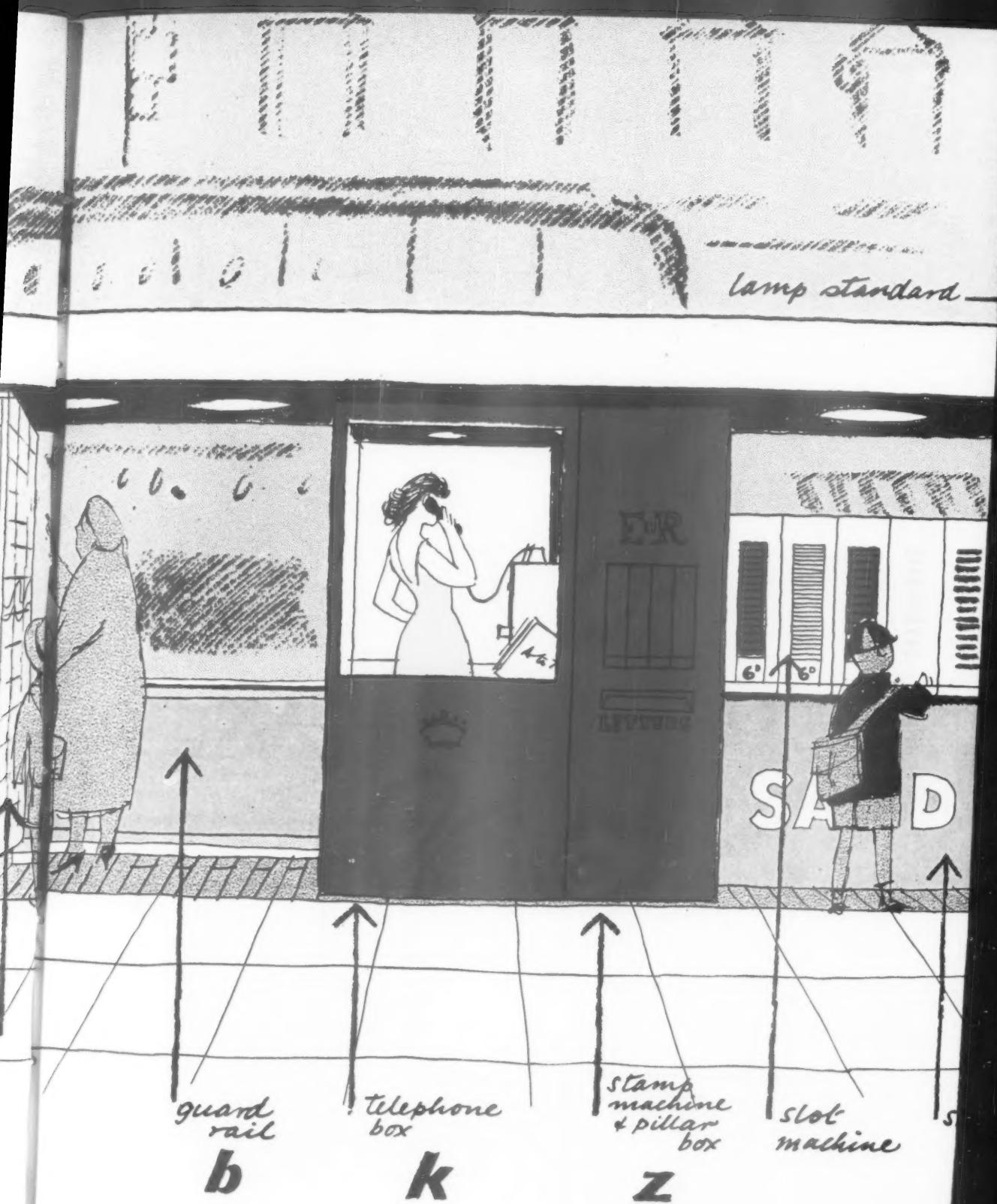
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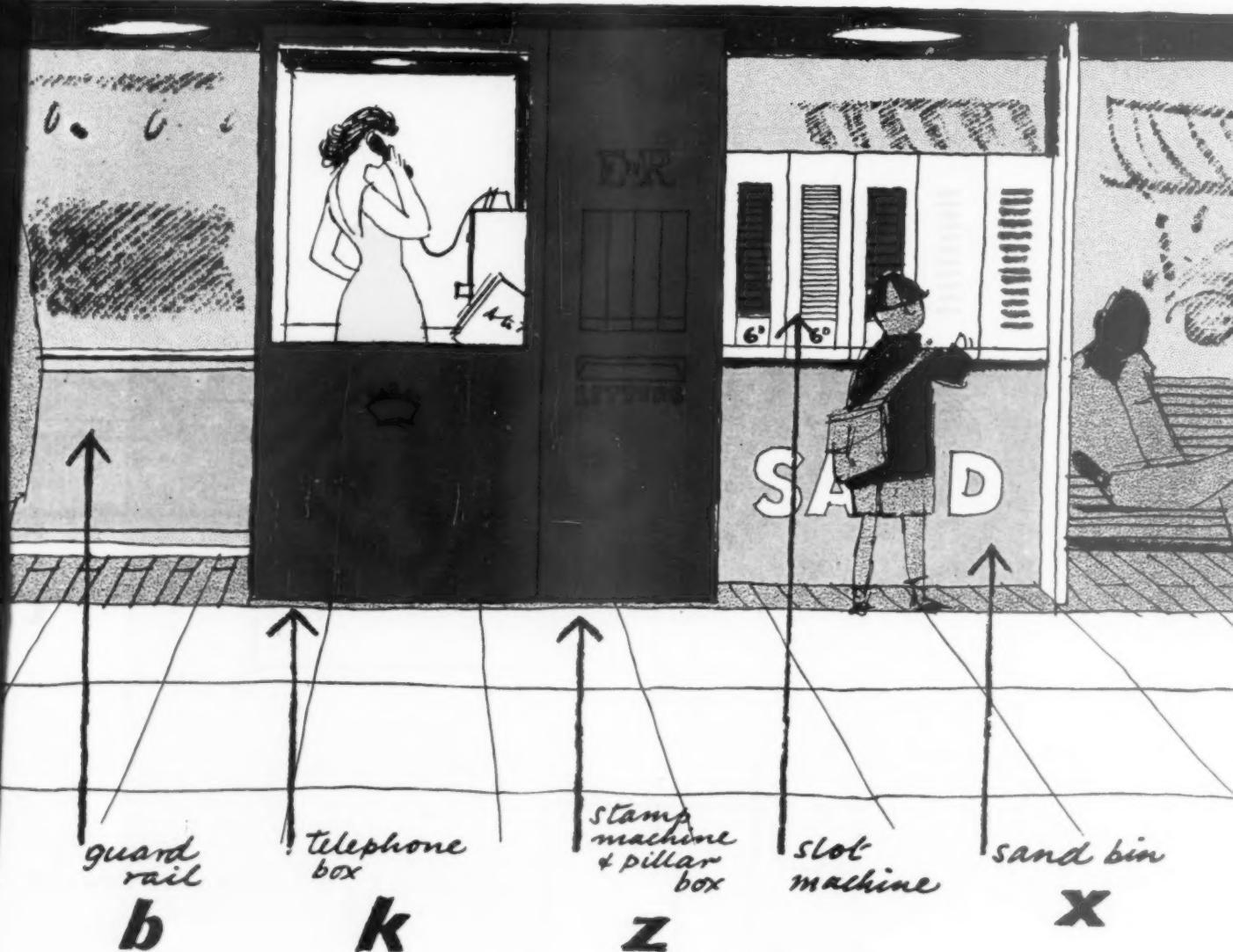
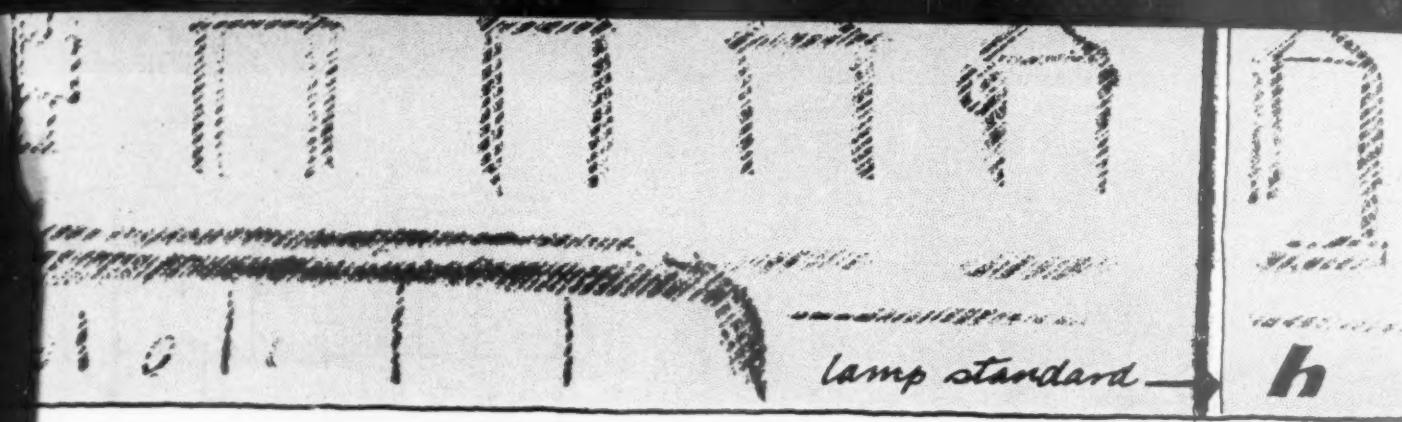


Pedestrian Canopy



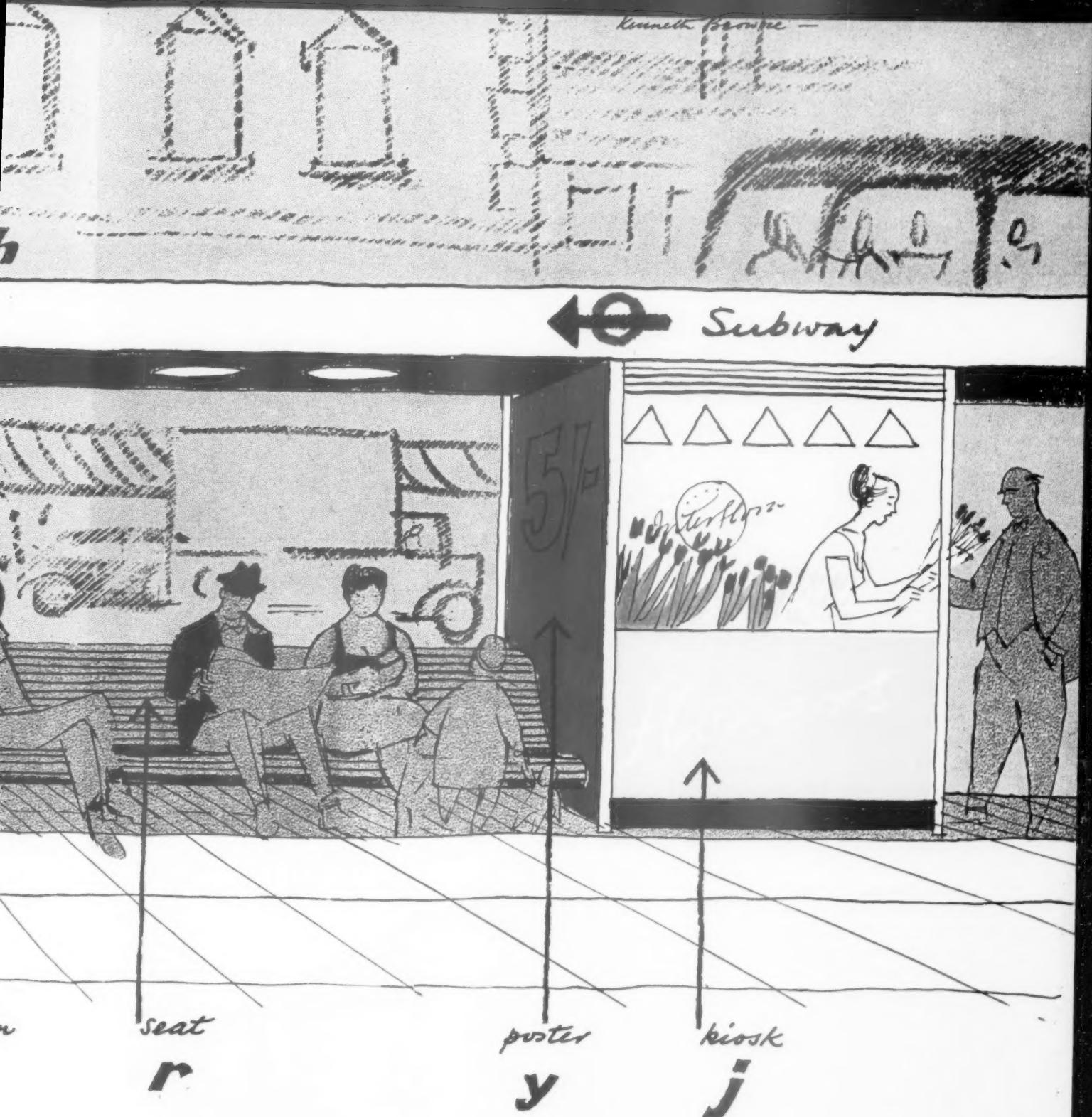
street signs should suggest, signs (e.g. yellow No Waiting 12, or P for the motorist. They must be clues he can have and language.*

* See 'Alphabet and Image.'



street signs should be just what the name suggests, signs (e.g. yellow painted curb indicates No Waiting 12, or P for parking) not memos, to the motorist. They must be the simplest and clearest cues he can have and become an accepted sign language.*

* See 'Alphabet and Image,' Gordon Cullen, A.R., Oct. 1956.



As regards **lighting columns** the Ministry of Transport, on whom the local authority depends for a grant, looks at things entirely from the centre of the road and would regard Notting Hill Gate for instance as just an incident on the A40. It is true that the Ministry asked the COID to compile a list of well-designed fittings and quite a

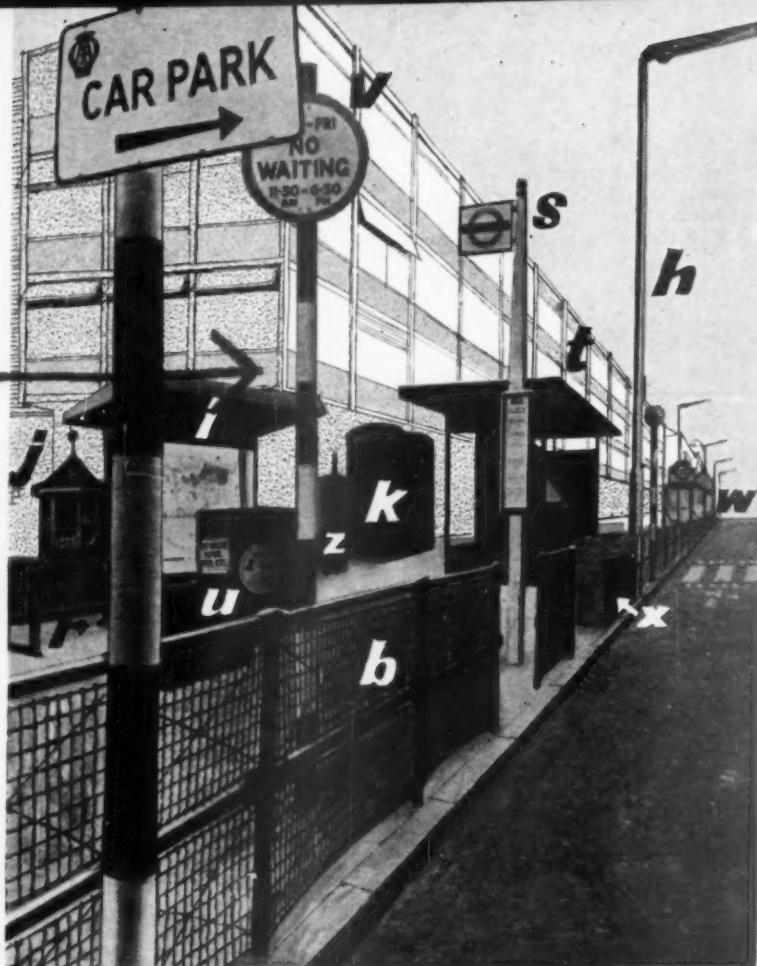
lot are now available, but, and this is the crazy part, they may never be seen because they cost a few bob more and the MOT grants are always based on the lowest tender. The fact that the better design may be cheaper to maintain is not considered. How can we get good streets under these conditions? Of course the best may cost a bit more.

Street Furniture (contd.)

Street objects accumulate by courtesy of the Ministry of Transport, the Post Office, the motor-club, the police, LPTB and the local authority each working to its little book of rules with sublime

DISRUPTION

disregard for anyone else and most especially for the look of the street which ends up looking like a junk heap 11, 2. Here each object is a separate entity competing with all the others. What is the answer? The design, simplification and co-ordination of street furniture and its intelligent positioning is a big 3-dimensional problem and it should be very much the concern of the architect and not just left to chance and the rule book. In the first place as many items as possible should be thought of early enough for them to be built in to the architecture, e.g. 'phone, police and pillar boxes, street lights on walls. Others should be combined, others eliminated.

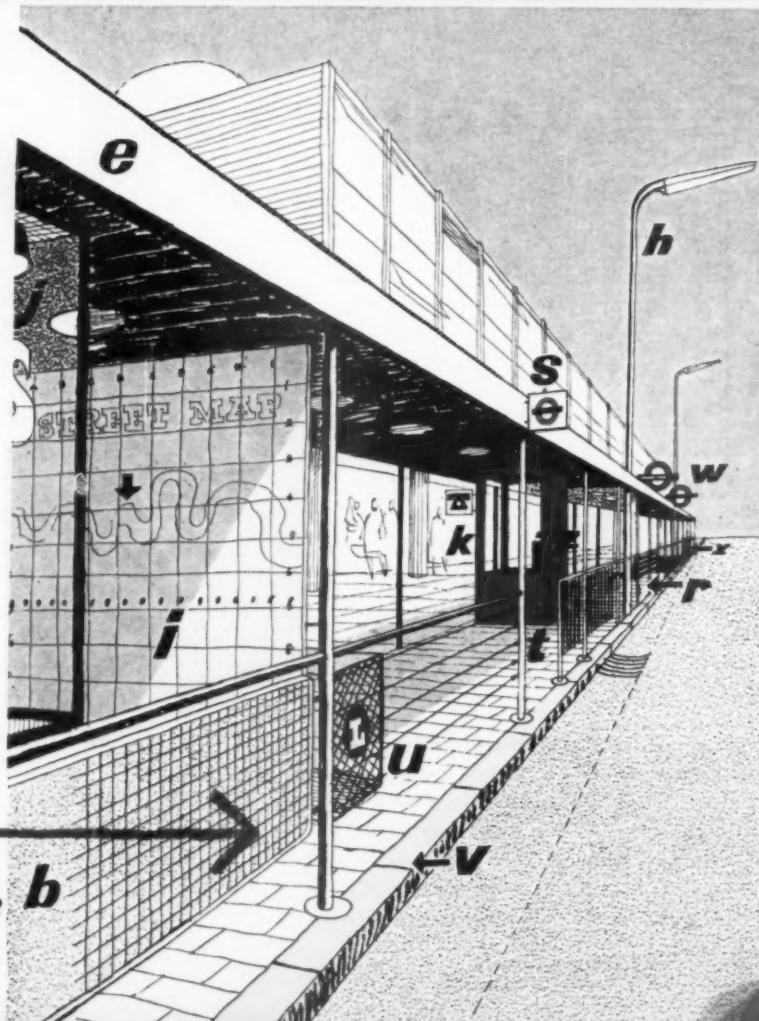


At Notting Hill Gate simplification could be obtained by the construction of a pedestrian canopy, 12, leading from the Underground subway w which besides providing shelter and effecting enclosure of pedestrian space could contain and knit together nearly all the objects which individually destroy the scene:—

e.g.
b guard rail, **h** lighting column,
i map, **j** kiosk, **k** telephone box, **r** seat, **s** bus stop sign, **t** bus shelter, **u** litter bin, **v** no waiting sign, **w** exit from Underground, **x** sand bin, **z** pillar box and stamp machine.

In fact the more objects the merrier once co-ordinated. An even greater simplification could be achieved if the lighting instead of requiring separate columns could be provided by a continuous strip along the fascia of the canopy. It would probably cost more but it could be done. Obviously the pedestrian canopy is not the whole answer to the street furniture problem but it does point the lesson of unification; the fitting together of all the pieces to produce a coherent thing in place of a jumble of objects.

← **UNIFICATION** →



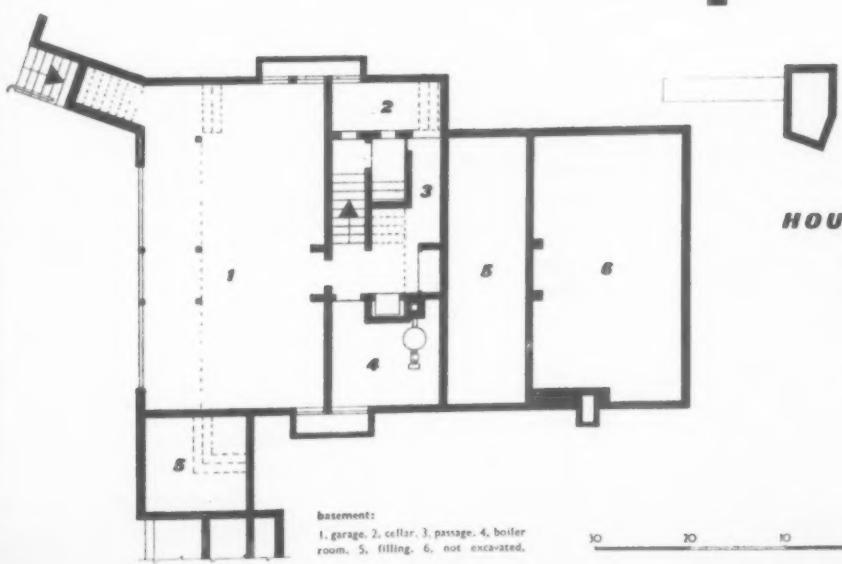
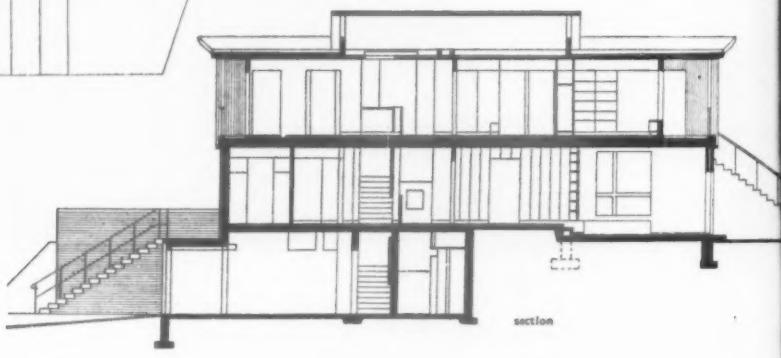
first floors

1, bedroom. 2, bathroom.
3, upper hall. 4, balcony.



ground floor:

1, raised passage. 2, covered porch. 3, cloakrooms.
4, entrance hall. 5, hall. 6, study. 7, utility room.
8, kitchen. 9, dining room. 10, living room.
11, balcony. 12, dust bins. 13, greenhouse.



basement:

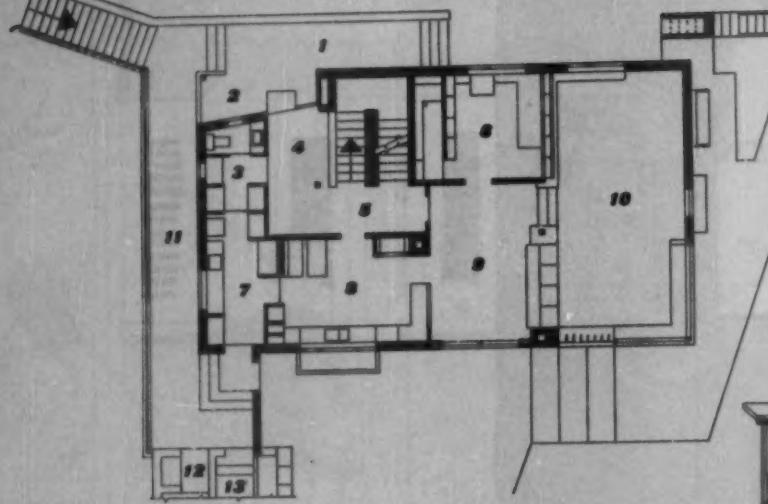
1, garage. 2, cellar. 3, passage. 4, boiler
room. 5, filling. 6, not excavated.

30 20 10 0 10 feet

HOUSE IN HIGHGATE, LONDON

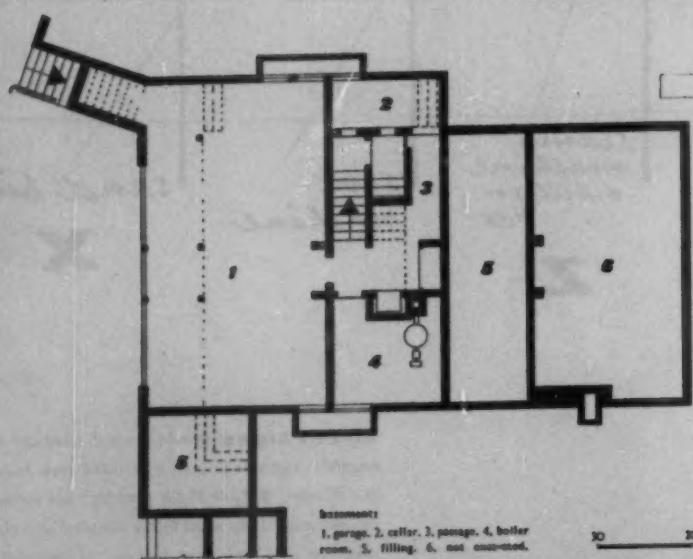
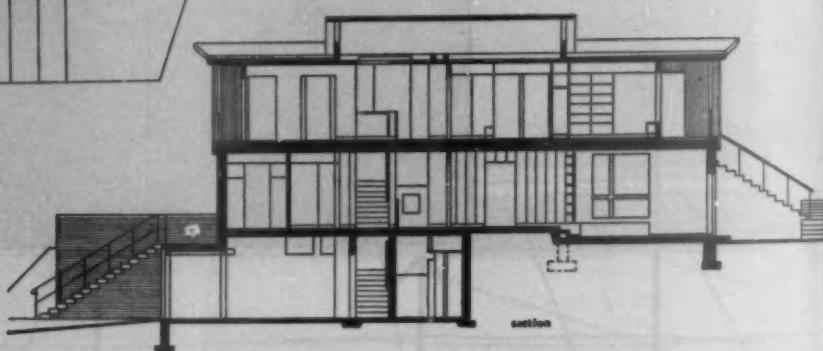
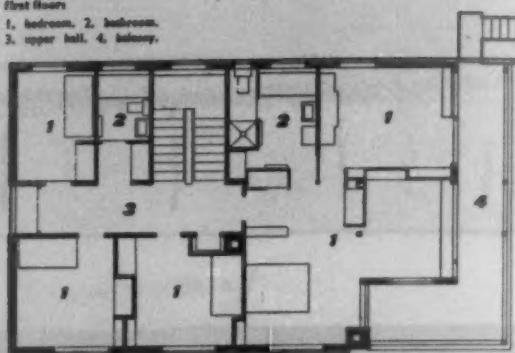
ground floor:

1. raised passage. 2. covered porch. 3. cloakroom.
4. entrance hall. 5. hall. 6. study. 7. utility room.
8. kitchen. 9. dining room. 10. living room.
11. balcony. 12. dust bins. 13. greenhouse.



first floor:

1. bedroom. 2. bedroom.
3. upper hall. 4. balcony.



basement:

1. garage. 2. cellar. 3. passage. 4. boiler room. 5. filling. 6. not connected.

50 20 10 0 10 feet

HOUSE IN HIGHGATE, LONDON

HOUSE IN HIGHGATE, LONDON

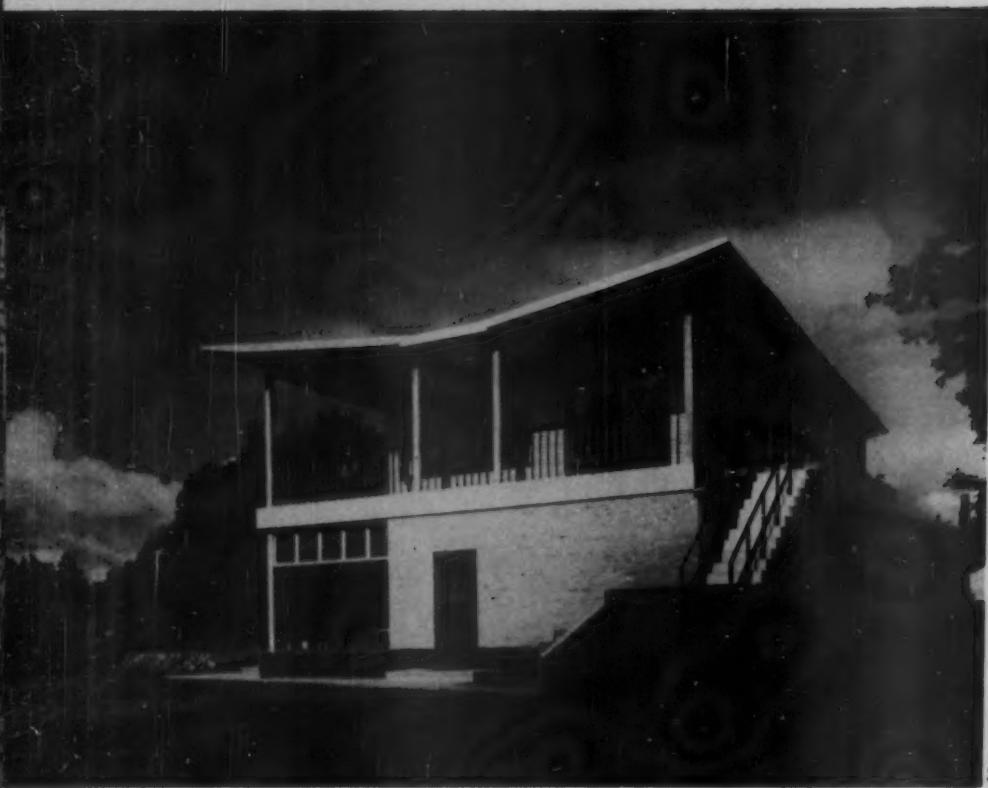
ARCHITECT | ERHARD LORENZ



The name of the architect of this house may well be unfamiliar to British readers, since his practice is located in Rhodesia. A Dane by birth, he has worked in various offices in Scandinavia, including Aalto's and Jacobsen's, and has been for many years a friend of Mr. Ove Arup, the engineer, for whose occupation the house has been built. The project for the house was hatched during a visit to London by Mr. Lorenz in 1955 (see *Skill* article, page 353).

The site, which was part of the garden of a large house in the Grove, Highgate, has an uninterrupted south-westerly view over Parliament Hill Fields and

1. view from the west:
the wall at first floor
level is faced with ship-
lapped pine vertical
boarding, creosoted
dark brown.



2

Hampstead Heath; the site slopes in this direction and the principle rooms overlook the view.

Excavation of the site was carried out at road level to house a double garage, boiler house, oil store and wine cellar which form a basement to the house. The ground-floor walls are of cavity construction with an inner skin of insulating p.f.a. blocks and yellow bricks outside; the cavity is filled with pellets made of pulverized foundry ash. On the first floor the walls are of 6-in. insulating p.f.a. block faced externally with 3-in. by 1-in. ship lapped pine vertical boarding on battens, creosoted dark brown; this pine wood is also used for the first-floor ceilings. Black brick with recessed black pointing is used for the plinth, greenhouse and garden walls, while the chimney is rendered with white cement. Window frames are painted white, the steel handrails to the entrance stairs, balcony and garden are black, while the basement external doors, balcony handrails and ceiling to the entrance porch are polished doussie. Artificial stone slabs pave the entrance balcony and the black ribbed tiles covering roofing felt and cork on the south balcony provide insulation for that part of the living-room ceiling.

Inside all the joinery is of polished doussie except the doors and the wardrobe fittings in the master suite which are painted white. The floors are Junkers strip fixed to battens on cork pads. Woods used are ash, beech, elm and oak which are sealed and wax polished. On the ground floor, the higher level dining and study areas are designed to be part of the living-room space; an open fire, emptied externally, is situated in the southwest corner of the living-room. On the first floor the bedroom, dressing-room and weaving-room are also virtually one space, divided by 6 ft. 6 in. high fittings with glass above.

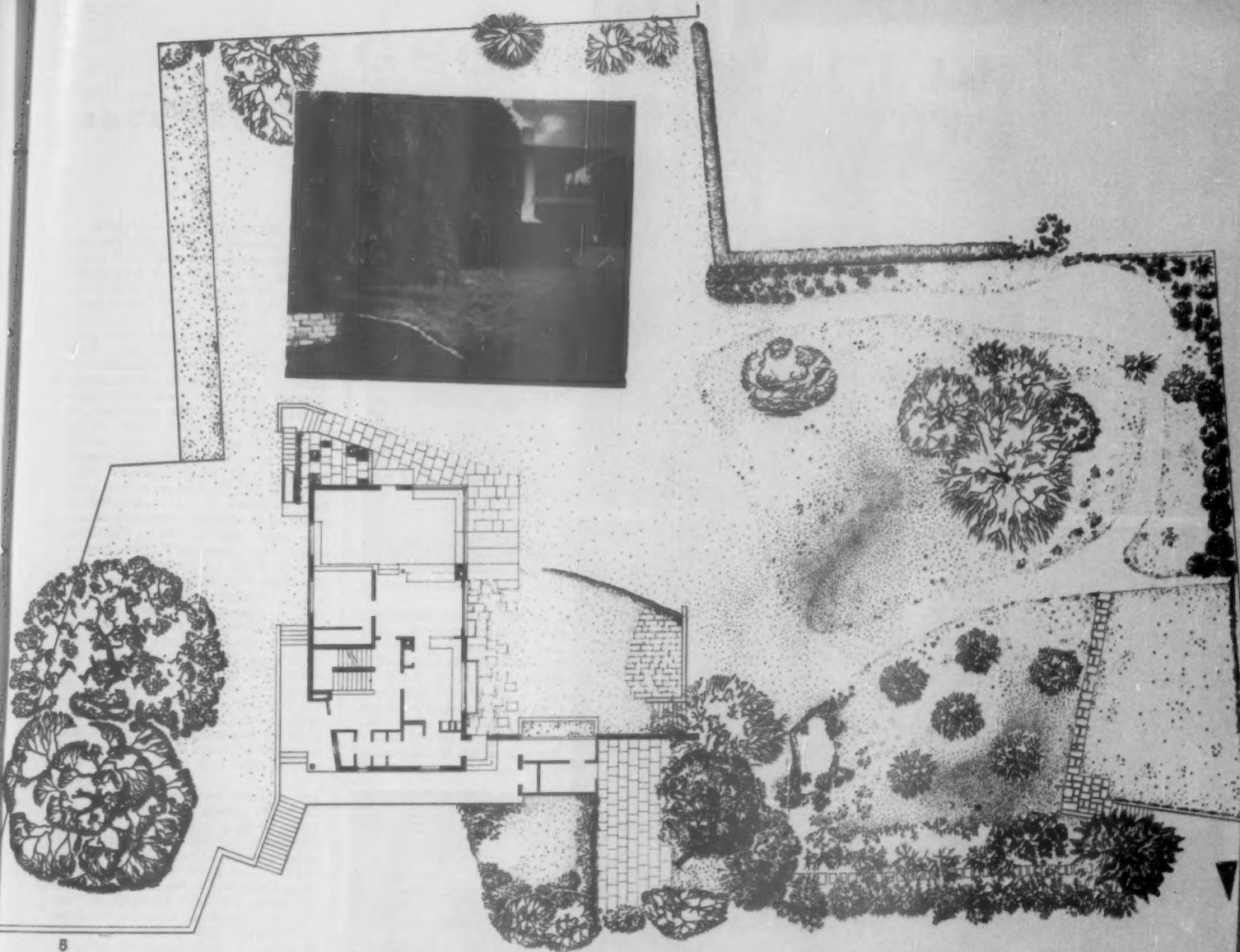
2. the south elevation and first floor terrace.
3, staircase from the first floor landing; the boarded ceiling is painted grey and the walls are white.
4, bedroom showing cupboards and shelves of polished doussie. The boarded ceiling is painted light grey.



3



4



5

HOUSE IN HIGHGATE, LONDON



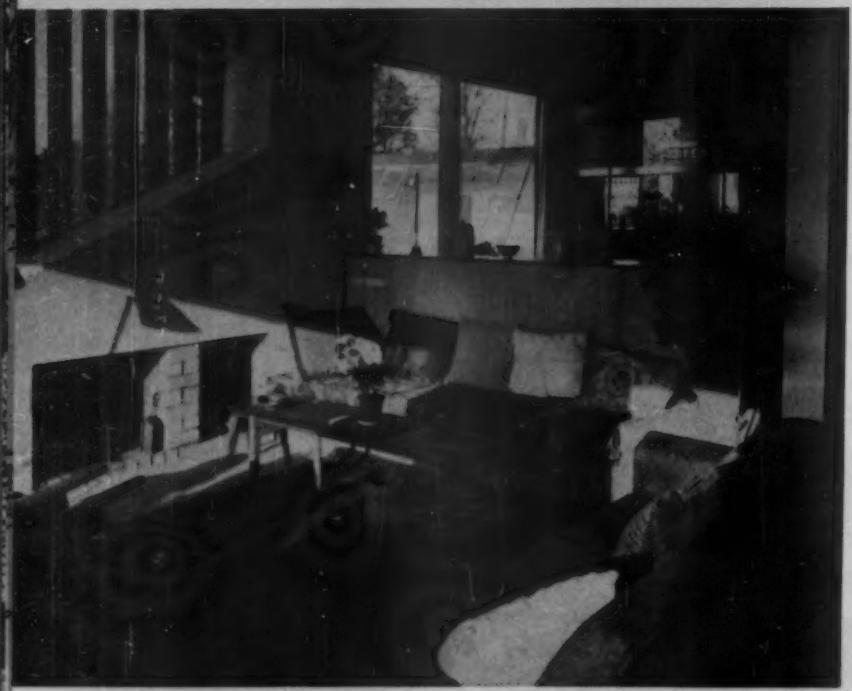
6

5. plan of the garden with inset view from the west and corner of the pond in the foreground. The road in which the house stands, Fitzroy Park, runs along the foot of the plan.
 6. northern elevation with ship-lapped pine used as facing for the first floor. The window frames are white while the garage doors and balcony handrails are of polished doussie.



HOUSE IN HIGHGATE, LONDON

7, corner of the living room overlooking the main view to the south west. Over the fireplace is a window shielded by vertical wooden louvres.



8, the living room with the dining area on a higher level to the right. The division between the two areas forms a back to the fireside seat. The chimney is rendered with white cement.



9, the dining room showing a full height sliding glass wall opening to the terrace which overlooks a pond.

GEORGIAN SCULPTORS

ARCHITECT AND SCULPTOR

by M. I. Webb

Sculptors have frequently worked to the designs of architects, though they have also frequently altered or improved the designs to suit the technical requirements of marble sculpture. This matter of designs for sculpture is a subject that, in England at any rate, has been very little studied. There are a very considerable number of drawings for monuments, statues, and sculptural decoration scattered about England in museums and libraries, and in most cases little has been done about them beyond the rather haphazard identification of some of them with objects which they may or may not represent. If the object is architectural, e.g. a fireplace that can be identified, then the name of the architect known to have been concerned with that particular house becomes attached to it; if it is a drawing for a statue or monument, then it is usually credited to the sculptor concerned, though in fact both an architect and a sculptor may have made several drawings before the final design has been arrived at. In the more complicated and ambitious sculptural schemes the theme may even have been dictated by yet a third artist or a learned man, and for most monuments, as for most private houses, it must be supposed that the client has also expressed an opinion.

This system whereby the idea and general scheme is given, either in words or by means of a sketch, and then translated freely by the artist reaches back into the Middle Ages. Examples can be cited from France in the fifteenth century for tapestry, and in England from the sixteenth and seventeenth centuries. An instance of this is the 'devise' by Thomas Hayward, Jnr., a writer of plays and pamphlets, which was carried out by John and Matthias Christmas, the official carvers to the Navy, on the elaborate stern-castle of the *Sovereign of the Seas*, which was built in 1637. When the excessive cost of this ship was attacked in Parliament Thomas Hayward published the annotated copy of his 'devise.'

It is clear that relics of this system were continued into the



1, monument to 2nd Duke of Montagu.



2, monument to Duchess of Montagu.

eighteenth century and an example of the 'devisors' work is probably to be seen in Roubiliac's monuments to the Duke and Duchess of Montagu at Warkton in Northamptonshire. According to W. T. Whitley in *Artists and their Friends in England 1700-1799*, the learned antiquarian Martin Folkes helped to design the monument to John, the 2nd Duke of Montagu, who died in 1749. If



3, monument to Bishop Milles.

this is so it seems probable that Folkes was also concerned with the design of the adjacent monument to the Duchess who died in 1751. On the Duke's monument, 1, the Duchess, standing on a lower level than the rest, watches Charity, with three children, hanging up a medallion portrait of the Duke. On the Duchess's monument are the three Fates, Clotho with her distaff on the left, on the right Atropos, the thread she held having just been cut, while Lachesis with her shears in one hand and the other resting on a skull, stands below: a boy and a girl are busy hanging a garland of flowers round a large urn, 2. All these figures are exceedingly graceful and beautifully carved and are among the finest examples of Roubiliac's work. The backgrounds

of the monuments—one recessed and the other breaking forward, each an elaborate exercise in design in depth—are also typical of Roubiliac. Both monuments have a 'painterly' quality of the kind so much deplored in sculpture by Sir Joshua Reynolds. Though the elaborate symbolism of these monuments, particularly that to the Duchess, may indeed suggest a literary origin there seems no reason to suppose that they were designed by an architect.

Gibbs, Kent, Robert Adam and Sir William Chambers, to mention four famous eighteenth-century architects, all designed monuments, but they do not seem to have designed any to be carved by Roubiliac. The only architect with whom Roubiliac is known to have worked is Sir Charles Frederick (1709-85),



4, monument to Lady Lyttleton.

who became Surveyor General of the Ordnance in 1750. Two monuments designed by Frederick and carved by Roubiliac are known, though in neither case does Roubiliac's sculpture seem to have benefited by having to conform to an architect's design, rather the reverse. The earlier of the two was probably that to Thomas Milles, Bishop of Waterford (ob. 1740), now in the new church at Highclere, Hampshire, 3. This monument, which was moved from the old church, has been mutilated, for its base, a tablet with inscription and swags, has been placed alongside instead of below the rest of it. The boy with his reversed torch is not a very good figure and, even if Frederick designed it, it seems odd that Roubiliac did not make something more attractive of the figure. Roubiliac was, however, capable of curious lapses. The monument is signed *Charles Frederick Inst. L. F. Roubiliac Sculpt.* Rather more successful is the other monument designed by Frederick, that to Lucy, wife of George 1st Lord Lyttleton, erected in 1748 in Hagley Church, 4. This is not signed but documented.¹

James Gibbs published a number of designs for monuments in his *Book of Architecture* in 1728. Some of these he named in the letterpress, others have been identified, but many must have served as patterns which were used, probably with slight alterations, by sculptors working quite independently of Gibbs. There are several unpublished drawings for monuments by Gibbs in the Victoria and Albert Museum, some of which can be identified.

The principal sculptor who worked with Gibbs was Michael Rysbrack,

who came to London from Antwerp in 1720 and who seems to have been employed by Gibbs almost immediately on important monuments which were being erected in Westminster Abbey. Rysbrack soon made a name for himself though he continued to work with Gibbs until the latter's death. Rysbrack had a great reputation as a draughtsman and dozens of his drawings have been preserved, some free-hand and imaginative, but most of them are neat and careful, though not very large, scaled drawings for monuments. Considering that Rysbrack, during the period 1725-60, was about the most famous sculptor in England, and that he did not leave much of the work on the marble to assistants, it seems almost incredible that he should also have done personally this enormous number of scale drawings; but it is impossible to doubt their authenticity. One item which helps very much in the identification of drawings for monuments is the 'scribble' which takes the place of the intended inscription, and this always seems to have a complete individuality. This



5, drawing by Gibbs for monument to James Craggs.

'scribble' is quite different on drawings by Gibbs, Rysbrack, or Kent, and, moreover, it remains consistently individual to its owner.

Among the unpublished drawings by Gibbs in the Victoria and Albert Museum are two showing a draped figure leaning on an urn and a third with a similar figure seated—leaning his open book on an altar. The first of them, 5, is to all intents and purposes the finished drawing for the monument erected in Westminster Abbey in 1727 to James Craggs, Secretary of State, who was a great friend of Pope's. The sculptor was Giovanni Battista Guelfi, an Italian who worked in England from about 1725 to 1784. There are several references to this monument in Pope's letters though there is no mention of Gibbs or of how the design was arrived at; but considering Gibbs' reputation at this date, and the drawing, there can be no doubt that, though Pope or Guelfi may have suggested the figure leaning on an urn, the credit for the design must go principally to Gibbs. No drawings by Guelfi are known, so it is impossible to say how much he influenced the pose of the figure.

¹ I have to thank Mr. Geoffrey Beard for the photograph.



6, another design for a monument by Gibbs.

there is a small terra-cotta model in Sir John Soane's Museum which is similar to the drawing and the finished figure. The monument, now mutilated and skinned in a chapel, originally stood on the floor of the nave with a pedimented background similar to that shown in the Gibbs drawing.³ The second drawing by Gibbs may be another suggestion for the same monument, 6. This figure leaning on an urn became very fashionable and another example is to be seen at Sherborn, Gloucestershire, where Sir John Dutton by Rysbrack clearly derives from Criggs or the Gibbs drawing with which Rysbrack must have been familiar. The Dutton monument is signed *M. Rysbrack Fecit 1749* and it seems probable that Rysbrack designed it himself even though he was borrowing, but the dark marble pyramid behind the figure is more in character with Rysbrack's designs than Gibbs', 7. The third drawing by Gibbs illustrated here could be either another suggestion for the Criggs monument or the idea which developed into the monument, 8, to Edward 7th Earl of Warwick and 4th Earl of Holland in St. Mary Abbots, Kensington. This monu-



7, monument to Sir John Dutton.

ment, 9, is also by Guell as is proved by a receipt in the British Museum for £100 signed by Guell in 1730.⁴ Again there is no known reference to Gibbs as the designer but the architectural setting for the monument implies an architect's hand and, considering the pose, it seems possible

that it is by Gibbs, though the scroll motif was a favourite with Kent. Another monument known to have been designed by Gibbs is that to the first Lord Barnard and his wife and child at Shipbourne in Sussex. The church has been rebuilt and the monument occupies the entire width and height of one wall of a sort of aisle which is used as a vestry and



8, design for a monument by Gibbs.



9, monument to 7th Earl of Warwick.

store. It is unfortunately impossible to get sufficiently far away from the monument to photograph it. The sculptor is unknown, but is probably Rysbrack.

An architect who made very little concession to sculpture, when asked to design a monument, was Leoni.



10, monument to the Piggott family.



11, design for a monument by Kent.

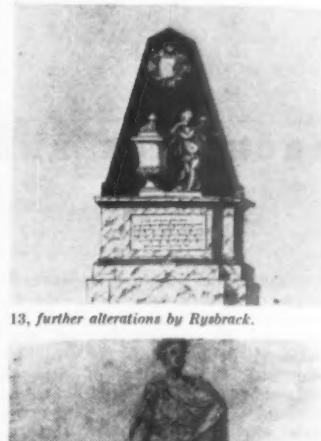
This is patent in his monument to Sir Richard Piggott and his heir Thomas Piggott and their wives. The monument is at Quainton in Buckinghamshire, and except for three cherubs' heads it is severely architectural, 10. It is signed *Leoni Archi*. He also signed the monument in the cloisters of Westminster Abbey to Daniel Pulteney (ob. 1731). This has a reclining figure and the sculptor was Rysbrack. A third monument which it is tempting to attribute to Leoni is that to Thomas Long and his wife Mary in the little church at South Wraxall in Wiltshire. Thomas Long, whose name comes first on the inscription, did not die till 1759 though his wife died in 1733. Leoni died in 1746 and it is possible that the husband obtained a design for a monument when his wife died, even if the inscription was not cut till after his own death. The monument is purely architectural with Corinthian columns and a pediment with a discreet coat of arms; a large mauvish coloured urn, not quite freestanding, occupies the centre between the columns against a background of black-flecked-brown marble. The whole is very much in Leoni's manner and not at all what one would expect to find designed in the 1760's, and though country masons and architects were often several years behind the London fashion, there is usually a slight clumsiness about such works which makes them recognizable. The Long monument, on the contrary, looks as if it was by an accomplished up-to-date architect. Again, unfortunately,



12, alterations by Rysbrack to a design by Kent.

it is so large and in so small a space that it is impossible to photograph it satisfactorily.

William Kent was Gibbs' chief architectural rival as regards the



13, further alterations by Rysbrack.



designing of monuments. Perhaps the two most noticeable monuments in Westminster Abbey, although they are by no means the largest, are those to Sir Isaac Newton and Lord Stanhope which close the nave and stand up against the screen. These were designed by Kent and carved by Rysbrack. They originally had a plain screen for background,



15, statue of George I by Rysbrack.

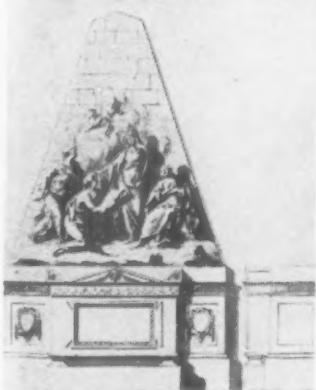
and the present Gothic revival screen, by Blore, has thrown them out of scale besides partially obscuring them. Virtue in one of his note-books, writes 'April 1731 Sett up in Westminster Abbey the monument of Sir Isaac Newton, a noble and elegant work of Mr. Michael Rysbrack, much to his reputation. tho the design or drawing of it on

paper was poor enough, yet for that only Mr. Kent is honoured with his name on it (*Pictor et Architect inventor*) which if it had been delivered to any other sculptor besides Rysbrack, he might have been glad to have his name omitted.⁴ Though Kent was commissioned to design these and other monuments and statues which Rysbrack executed, the very many drawings by Rysbrack which have survived show us that the sculptor did not scruple to alter Kent's designs, and it seems to have been Rysbrack's final version which was carried out. Comparing the relevant Kent and Rysbrack drawings it is evident that the sculptor not only tidied up and made more compact Kent's design but also removed some of the Baroque detail in which Kent had indulged, thereby making each design slightly



16, monument by Athenian Stuart and Thomas Scheemakers to the Freeman family.

more classical. Similar alterations are particularly evident in the three drawings for a monument with a *putto* holding a reversed torch and leaning on an urn.⁵ The first, 11, by Kent, shows a boy, his left side and drapery extending beyond the line of the pyramidal background; he leans on a curious urn, holding a reversed torch, which is almost as big as himself, and the decorative mouldings are all large and bold. Then there is a Rysbrack drawing, 12, showing the same urn but the boy has acquired little wings and a torch of manageable proportions, although he still overlaps the pyramidal background which has been heightened; the decoration of the mouldings has been altered. A second drawing by Rysbrack, 13,



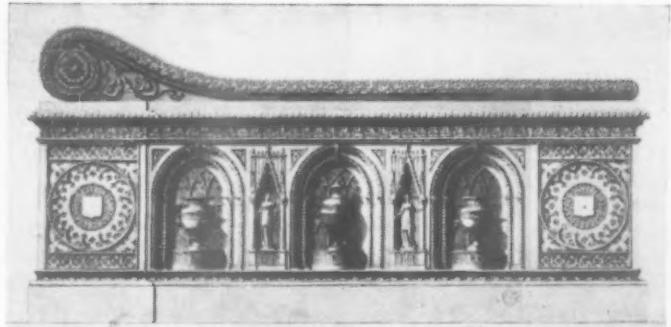
17, drawing by Rysbrack for the monument to Nathaniel Curzon.

⁴ Walpole Soc. XXII Virtue III p. 50.

⁵ The drawings are in the Prints and Drawings Department of the Victoria and Albert Museum.



18, drawing for the monument by Carlini to Earl and Countess of Dorset.



19, drawing inscribed Robert Adam Architect Adelphi 1775 for monument to Earl and Countess of Dorset.

shows the boy-angel well inside his pyramidal background leaning up against a much more conventional urn (reminiscent of Gibbs) and the base, which has been altered to a standing monument instead of a bracket, has become much more classically restrained.

Kent also, apparently, designed the statue of George I, now in the Law Library at Cambridge, which was ordered by the Senate in October, 1736. Rysbrack was the sculptor and Virtue records in October, 1739, 'The statue of his late Majesty K. George I carved out of a block of white marble by Mr Rysbrack near Oxford Chapple was carried thence in order to be erected on a Marble Pedestal in the Senate Room of the University of Cambridge.' Curiously, none of the contemporary references to it make any mention of Kent, but the drawing in the Victoria and Albert Museum, 14, can be identified by its scribbled inscription as being by the same hand as the drawing for the Newton monument by Kent. The statue of George I, 15, shows certain changes, most notably the right hand and arm (which is extended in the drawing) have been flexed and supported on the broken column and baton, a change of position which both improves the design and makes due allowance for the technical difficulties of the weight of marble; the breaking up of the folds of the toga is also an improvement by Rysbrack.

Two monuments are known to have been designed by Sir William Chambers, one to the Earl and Countess of Montrath in Westminster Abbey, the other to the 2nd Duke of Bedford at Chenies, Buckinghamshire, both of them being executed by Joseph Wilton.

Athenian Stuart designed a num-

In this palm trees clothe five of the columns of the lower triforium thus making three recesses; in the central recess stands Admiral Watson, the recesses to his right and left being occupied respectively by an Indian in chains and an Indian lady on her knees pleading to the Admiral. Most of Stuart's designs are more conventional and rather pretty in their very neo-classic way, as for instance the Freeman monument, 16, at Braughing, Essex.

There are several interesting drawings for monuments in the collection of drawings which came from Robert Adam's office and are now in Sir John Soane's Museum. Two of these are drawings for the monument to Nathaniel Curzon at Kedleston which was executed by Rysbrack. A drawing of the latter's also survives and it is interesting to compare these; for whereas the drawings from the architect's office show the shadows cast by the architectural features only, the sculptor's drawing, 17, shows the shadows of the architecture and also of the figures.

In the same book of drawings from Adam's office are two for the lovely monument carved by Carlini at Milton Abbas to the Earl and Countess of Dorset. One of these, 18, which is in an unidentified hand, shows the Countess wearing her coronet though there is a note on the drawing stating that it should be at her feet. This drawing shows a different base, for the marble couch is supported on four legs made up of scrolls, with a space between each scroll and in the central space an urn. The second, a much larger and more elaborate drawing is inscribed *Robert Adam Architect Adelphi 1775* and shows the base more or less as it was carried out, except that three urns are shown in the round-headed niches and female figures in the Gothic niches, 19, 20. It is tempting to wonder whether the first drawing is by Carlini (no drawings of his have so far been identified) except that it seems doubtful whether any good sculptor would have contemplated placing two life-sized marble figures lying full length on a marble couch which had so little to support its weight and no support at all in the centre.



20, monument to Earl and Countess of Dorset at Milton Abbas.

VICTOR ALEXANDER SEDERBACH

by Nikolaus Pevsner

This note is no more than an invitation to research. The facts have been known since 1910, and nothing new can be added to them.

In 1754 John Ivory Talbot of Lacock Abbey in Wiltshire rebuilt the entrance hall of his house. The house and its outbuildings comprise parts of the Augustinian house founded for canonesses by the widow of William Longsword in 1282. After the Dissolution, Sir William Sharrott gave the house more or less its present shape and introduced some of the purest and most successful Italian Cinquecento details into it. Early in the eighteenth century Lacock came to the Ivory family, and John Ivory assumed the name of Talbot. In 1753 one Richard Goddard, no doubt of the Swindon family, introduced Sanderson Miller to him, a Warwickshire squire who had, in the course of the 1740's, acquired a reputation for Gothic design. The remodelling of Talbot's Hall is due to him. It still exists complete with its coved ceiling plastered with a trellis of thin rope-like ribs and quatrefoils and with a series of most curious and unexpected figures and busts in canopied niches.



21, general view of the hall at Lacock Abbey.

They were made in 1755 and 1756 by one Victor Alexander Sederbach who lived in London in Green Street near Castle Street, Leicester Fields. He made them of red clay, baked so that they ring like a Garden Pot.¹

This they still do; so Mr. Eric de Maré could ascertain when he took the series of photographs here reproduced. The style of sculpture is evidently not English but German or Austrian, and the aesthetic quality is not as high as the best done in palaces and churches in those



22
1 See L. Dickins and M. Stanton: *An Eighteenth-Century Correspondence*, London, 1910, pp. 301-10.



23



24-25, details of some of the figures at Lacock Abbey, which are still unidentified.

25



26



27



28



countries. Sederbach's work is on the whole rough and naive. At the same time it has in its folk conventions something sufficiently personal to be, one would think, easily recognizable wherever else it may occur.

The surprising fact is, however, that, so far as my personal knowledge goes, it does not occur anywhere else. Sederbach's name is unknown to German art historians and their dictionaries and encyclopedias. Dr. Brechenmacher, a distinguished expert on family names, tells me that the name seems to belong to the Baltic provinces. The iron curtain cannot be penetrated to search for our Sederbach there. English scholars do not seem to have met him anywhere. What else did he do in England? Garden sculpture?

An unpublished passage in the Sanderson Miller correspondence now in the archives at Warwick,¹ says under March 10, 1757, that Sederbach 'had an offer of work in Holland where he Believ'd to go.' But my friends in Holland also are unaware of his name, or of work of his kind there. Perhaps he was not a sculptor originally but a 'Hafner,' a man who made tiles and decoration for pottery stoves.

We hope that in publishing these illustrations some reader might be encouraged to try and answer some of these unanswered questions. The sculptor of these weird saints and this bust of ferocious death would certainly deserve an attempt at recording his œuvre.

¹ Kindly communicated to me by Mr Anthony Wood, County Archivist, Warwick

THE CARTERS

In 1952, owing to the kindness of the late Sir Charles Chute, I was allowed to examine his archives at the Vyne, Hampshire, and among them found a bill from Thomas Carter for the famous monument of Speaker Chute in the private chapel of the Vyne. Hitherto the reclining figure of the Speaker had been attributed from a statement by Sir Samuel Egerton Brydges (written in the *Topographer* in 1789) to John Bacon the Elder. It is difficult to understand how the mistake arose, considering that Sir Samuel visited the Vyne frequently, but an article in *Country Life* of May 27, 1954, by Sir Charles Chute, with a photograph of Carter's actual bill, put the matter beyond doubt. Carter certainly employed assistants, but I have found no mention of Bacon (of whom several lives were written shortly after his death) working for Carter. Moreover, when the Chute monument was ordered Bacon was too well known and too well established to work for another.

What was, I must admit, very puzzling at that time, was that the only Thomas Carter one had knowledge of as a sculptor must have been, in 1775 (when work on the Chute monument started), a very old man; for according to an article in the *European Magazine* of 1808 (Vol. 11, page 178) Carter, about 1729, already had a yard of his own in Shepherd's Market; was married and, according to the same authority, borrowed from Jervase, the portrait painter, £100, a sum which enabled him to enlarge his yard, buy marble and hire an apprentice—an apprentice who later became far more famous than his master, for he was none other than the Frenchman, L. F. Roubiliac, one of the greatest sculptors who ever worked in this country. Even if Carter was able to set up on his own as a very young man indeed, he could not have been born after 1707, and was therefore nearly seventy when he started the monument of the Speaker.

Recently I have been able to solve this puzzle, and also to discover a good deal more about Thomas Carter; for it can now be proved that there were two Thomas Carters, uncle and nephew; this I found, when owing to the kindness of Messrs. Drummond, I was looking at one of their ledgers, which contained Thomas Carter's account with that Bank. There I saw that in the latter half of 1756 the account was certified by his executors. I at once went to Somerset House, where his will, dated August 1, 1756, and proved in the same year, was easily found. In this will he described himself as a 'Statuary living in the parish of

by Rupert Gunnis

St. George's, Hanover Square,' and leaves his property to his daughters, Elizabeth and Ann, the former being the wife of 'My nephew Thomas Carter, Statuary,' while the refusal of his stock in trade, etc., he leaves to his brother Benjamin, also a sculptor. Apparently the younger Thomas went into partnership with his uncle, and on the latter's death in 1766, took over his share; he did not die till 1795.

Both uncle and nephew turned out a great deal of work, and employed large staffs. In 1748 we find the elder Carter writing to Lady Oxford's agent about chimney-pieces for Welbeck, and saying he had forty workmen in his yard. Indeed, chimney-pieces seem to have been one of the principal lines of both uncle and nephew; for the elder Carter supplied the majority of the chimney-pieces for Holkham (1751-53).²



29. Colonel Townshend's monument.

The Carters no doubt supplied chimney-pieces to many more houses; for the ones I have quoted are all from bills which still exist and I have seen. Nor were these chimney-pieces unimportant works. For example, the elder Carter received £526 for one for the dining room at Welbeck, while the younger Carter

² Including those in the Saloon, Great Dining Room and State Bedroom, while other houses for which he provided chimney-pieces include Housham, Oxon (1737); Longford Castle, Wilts. (1739); Okeover Hall, Staffs. (1740); Mr. James West's house in Lincoln's Inn Fields (1745); Moulsham Hall, Essex (1746); Uppark, Sussex (1747); Milton Hall, Peterborough (1750); Blair Castle, Scotland (1751), and Belhus, Essex (1752). The younger Carter provided chimney-pieces for Dover House, Whitehall (1759); Salttram, Devon (1760); Shardeon, Bucks. (1761); Sir Richard Littleton's house, Piccadilly (1764); Merham Park, Kent (1766); Bowood, Wilts. (1769); Lansdowne House, Berkeley Square (1769); Milton Abbey, Dorset (1775); Carlton House (1785), and Woburn Abbey (1791).



30. monument to Mrs. Benyon.

was paid no less than £750 for one for Bowood, though the chimney-pieces at the latter house were designed by Robert Adam and 'Athenian' Stuart, and only carved at Carter's yard. Another house where Carter carved to the orders of an architect, was Milton Abbey, Dorset, where the designs were probably supplied by Sir William Chambers or John Vandy.

The secret of the Carters' long success seems to have been that they took the trouble to choose first-class assistants. We have seen how the elder Carter's first assistant was Roubiliac. The younger Carter employed P. M. van Gelder, John Deare and John Eckstein; of the first named, Hutchins in his *History of Dorset*, 1861 (Vol. 1, page 408), writing of Van Gelder's monument to Mrs. Frampton (died 1762) at Moreton, Dorset, says that it was carried out by 'Van Gelder of Amsterdam under the direction of Messrs. Carters who, at the period, were reckoned among the first statuaries of the Kingdom.' The monument is indeed a lovely work, with the inscription framed with carvings of both wild and garden flowers. The Carters seem to have attracted foreign assistants, perhaps because their fame had spread to the Continent. While Van Gelder had come from Holland, John Eckstein, who was with Carter from about 1760-65, came over from Germany. He was the son of a wood carver of Poppenreuth, and was born in 1735; he studied first under Herr Priessler of Nürnberg, and then, when he was about twenty-five, came to learn his craft at Carter's yard. He must have been a skilled workman, for after he had been only a short time in England he carved the relief of Colonel Townshend's death at Ticon-

deroga on that soldier's monument in Westminster Abbey; the rest of the monument with its figures of two Indians being carried out by his employer. Thomas must have thought highly of his assistant; for he was allowed to have his signature together with his master's placed on the monument. Eckstein must have profited by his stay in London; for on leaving this country he was appointed sculptor to Frederick the Great of Prussia.

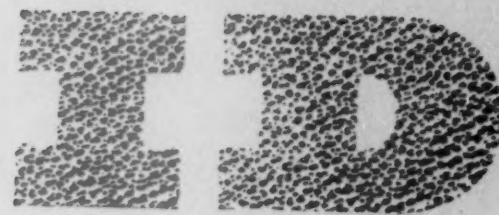
The third assistant who we know worked for Thomas Carter the Younger, was John Deare, who was apprenticed in 1776 when he was sixteen. In a letter to his father, quoted by Smith, Deare says of Carter, 'He is just as they say, a blustering fellow, but a good man.' Deare must have learnt a great deal working for Carter; for in 1780 he won the Royal Academy Gold Medal for Sculpture. But he still stayed with Carter; for in June, 1783, we find him writing home that he was working on 'a rich tablet for a chimney-piece' for Carter. Later that year he left Carter for good and set up on his own.

I think the reason why the Carters have become so completely forgotten is because, unlike the majority of sculptors, they did not sign their monuments, save on very rare occasions, and it is only through family account books and bills that one is able to identify with certainty their works. I have recently been lucky enough to discover that from the Carters' yard came the monument, 30, to Mrs. Benyon (died 1777) at Englefield, Berks.; for in the account book of Richard Benyon (Berkshire Records DEBY. A.3) is his part payment of £100 in 1778 to Carter for this monument. As the illustration shows, 31, this is a most exciting and unusual work, it depicts Mrs. Benyon falling back dead, while one woman—a maid?—tries to support her, and two others gaze in an agony of disbelief at their dead mistress. Whether this work was designed and carved by Carter himself or one of his assistants we shall probably never know. All one can say is that the carver must have had knowledge of Italian sculpture; for the design is undoubtedly influenced by the St. Teresa of Bernini.

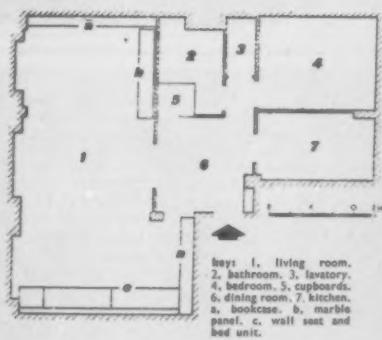
There are many monuments which one would like to ascribe to the Carters' workshop, but attributions are dangerous; though I am convinced that many important unsigned eighteenth century works in our parish churches come from the yards of both the elder and the younger Carter, which flourished for so long in Piccadilly. It is to be hoped that one day the Carters will be recognized, as they were in their lifetime, as among the 'first statuaries in the Kingdom.'



31. detail of Mrs. Benyon's monument.



INTERIORS BY JOHN AND SYLVIA REID



1. a view of the living room, showing the wall seat which can be used as occasional beds, and a full length bookcase on the left.
2. opposite view to 1, with wall-length bookcase and display unit.



1 Flat in Piccadilly, London, W.1

This flat at 89, Piccadilly, originally consisted of living-room, two bedrooms, bathroom and kitchen, and has been converted into a single, large living space with one bedroom and the bathroom and kitchen. What was originally intended as the vestibule is now used as the dining-space and the ceiling level of this area is slightly





3. the dining space with pinoleum screen on the left, entrance door on the right flanked by a full length mirror, to add light and an illusion of greater space.

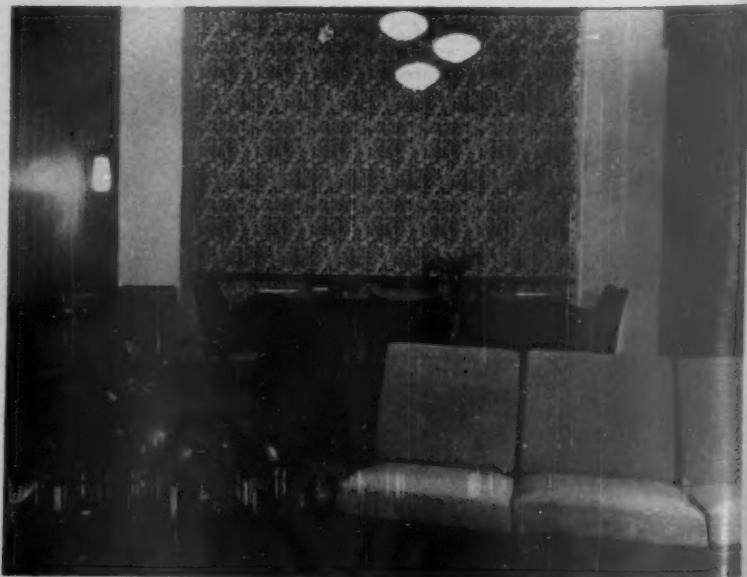
lower than the rest of the room. Full-length bookcases have been fitted and a long, low marble slab has also been built in. The back of the entrance door and the remainder of the wall in which it is placed has been covered with flush teak-veneered panelling.



4. the left hand wall of the boardroom is flush-panelled with cherry veneered plywood. The wall opposite has a black and white wallpaper while the curtains on the right are lime yellow and black deep-textured fabric.
5, 6, specially-designed cocktail cabinet shown open and closed. It is veneered in black and white plastic laminate.

2 Board Room In Vigo Street, London, W.1

A room was required which could be used as a board room, for informal gatherings, or as a private office. The window wall, painted white, is covered with lime-yellow and black deep-textured, fabric curtains which, when drawn, completely cover the whole wall. The radiators below the windows, are screened by white panels in metal frames with hardwood beads, and the opposite wall is covered with cherry veneered panels; the remaining walls are painted or papered. The teak purpose-made extendable table has a beech underframe. Cantilevered from the wall is a desk unit with a black, leather-cloth covered top and teak drawer fronts. General lighting is provided by concealed fluorescent lamps behind a baffle board fixed to a beam which crosses the centre of the room and accent lighting is provided by opal glass incandescent pendants and wall bracket fittings.



7. the curtains are red and white; the floor has black and white tiling, and the table tops are in black, yellow, grey and red.
8. detail of the air photo of London.

8



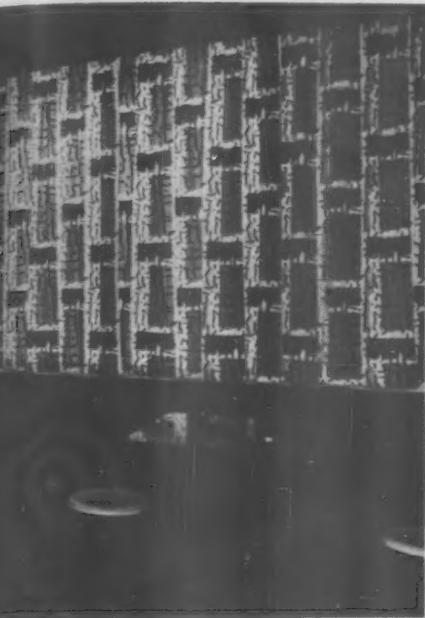
3 Boys Club at Stamford Hill, London, N.16

This room was given as a memorial by the family of one of the founders of the Club ; it is a study room designed for hard wear. The whole of the fireplace wall is veneered with plastic. An enclosed heater was chosen for safety reasons and a bookcase unit, with storage cupboards above and below, has been provided to house a small reference library and other equipment ; there is built-in seating on both sides of the room. The major feature is a wall covered with an aerial photograph of London, seen from just below Tower Bridge. The floor is covered with black and white marble lino tiles with sheet linoleum turned up to form a cove around the perimeter.

5



6



4



9

M/S PRINSESSE MARGRETHE

This new 1,200-passenger liner is used by the Danish line DFDS on its service between Copenhagen and Oslo, and is the first Danish ship to be fitted with stabilizers. The external lines are similar to other recent DFDS boats but the interior designer was called in to co-operate with the engineers at the very beginning before the steel framing was fixed, and in fact was able to alter the construction to some extent. The first class passengers board on to an internal hall instead of a promenade deck, and there is only glass between this and the corridors and saloons to maintain the maritime effect. This is especially noticeable in the self-service cafeteria, which has a broad window aft over the ship's wake and the Sound, kept steam-free by the use of infra-red heating. Stabilizers have meant that informal light furniture could be used; the same type is fitted to both first and tourist class rooms, the only variation being in the upholstery and curtains. The first class hall is panelled in Oregon pine; the built-in brass light fittings were designed by the architect and the rows of lights continue into the smoking-room panelled with Brazilian rosewood; the chair coverings are light and dark green and the black and white mural at the end is by Ole Schwalbe. The first class bar is directly connected to the smoking-room, with an end panel by Aagaard-Andersen and a mural behind the bar of cock fighting by Svend Dalsgaard. The tourist class central hall has a photo-mural of tree branches seen against snow by Keld Helmer-Petersen.

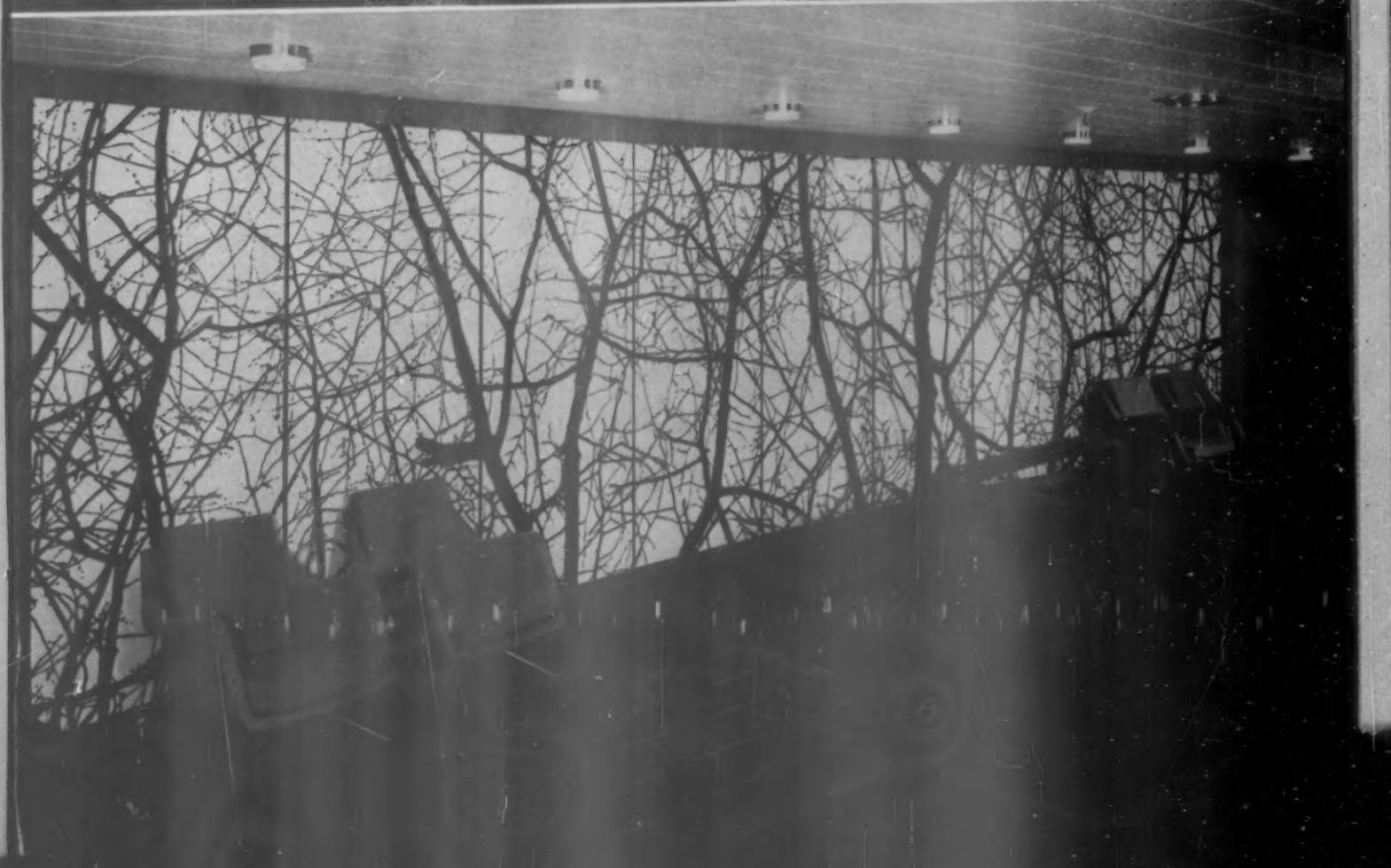
architect: Kay Korbing

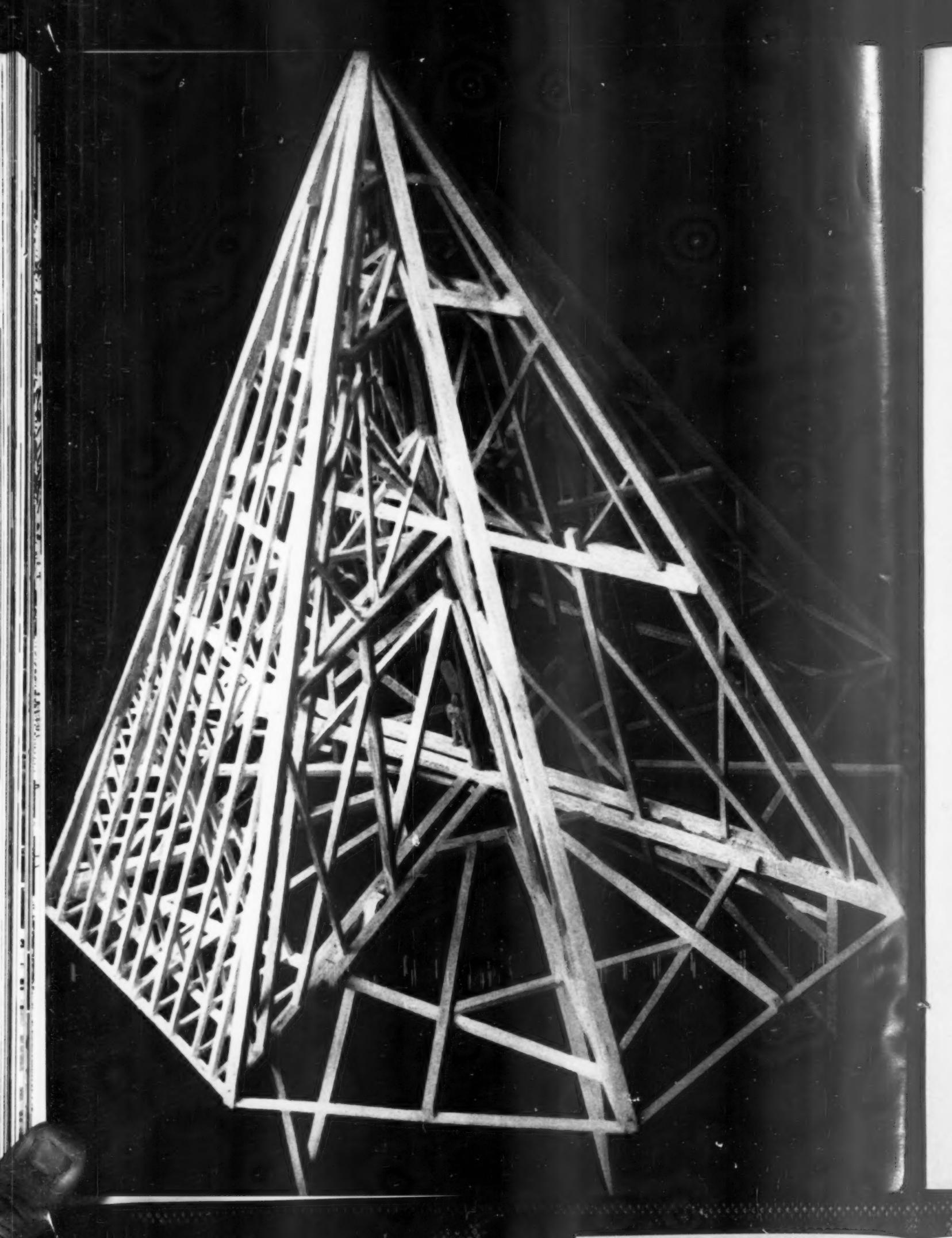
9. first class writing room. Glass on top of the door is carried direct into the ceiling profiles; the frames are anodized aluminium.
10. the first class bar and the smoking room. The end-wall decoration is by Aagaard-Anderson, while the wall in the bar is decorated with an iron relief by Svend Dalsgaard.
11. the end wall of the first class smoking room designed by Ole Schwalbe. The room is lit partly by the ordinary ceiling fittings and partly by tubes built into a dome and along the window wall of Brazilian rose-wood. Vivid greens, one light, the other dark, are used on the chairs.
12. photo-mural by Keld Helmer-Petersen, in the tourist class hall.

11
→
12

10

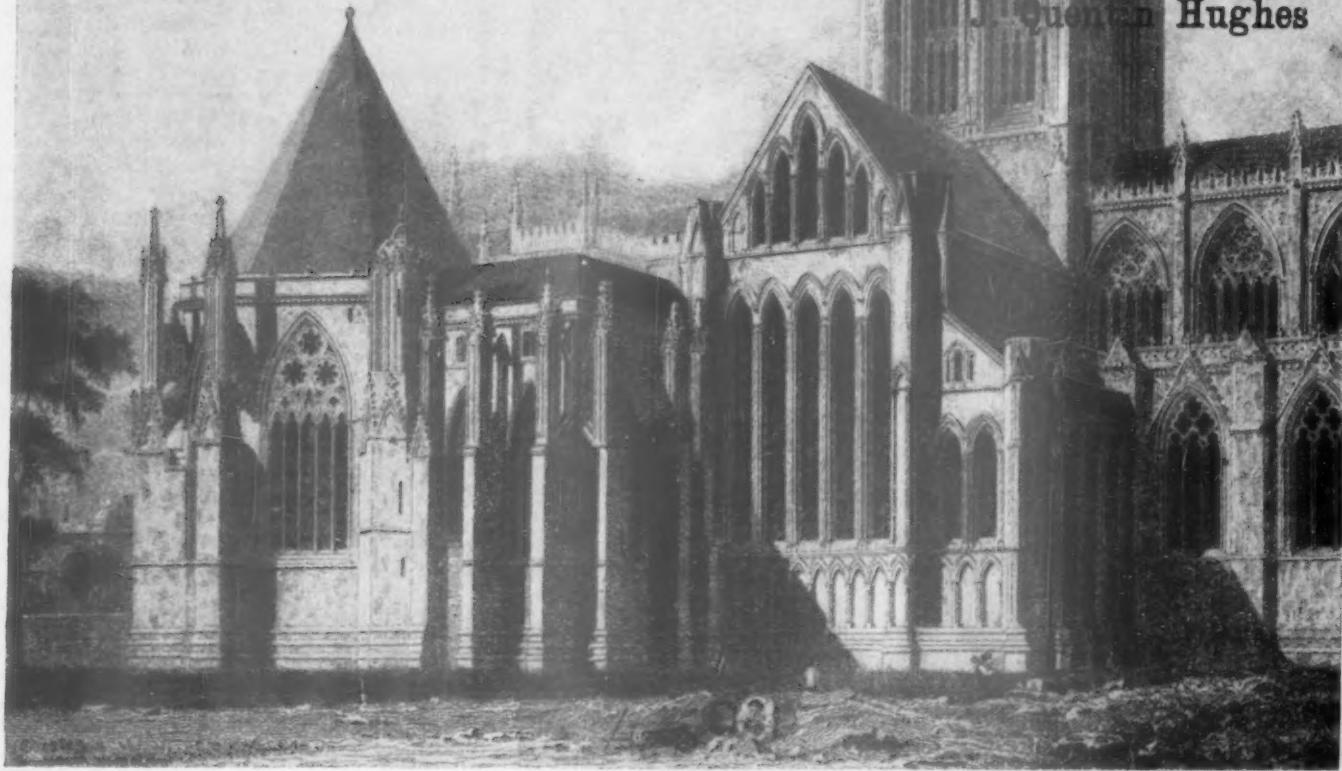






AN EARLY 14th CENTURY ROOF

J. Quennion Hughes



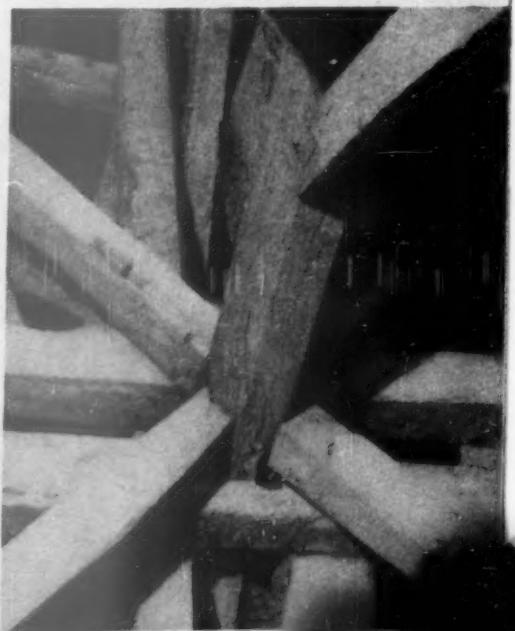
The Chapter House of York Minster, seen in Britton's view of 1819, above, has a roof-structure that is one of the master-works of Gothic carpentry. The basic principles of the structure are made visible in the model, opposite  and its veritable timbers are shown in close-up, 1, below.

Polygonal chapter-houses are an English speciality. York is different from nearly all of them for not having a central pillar. The decision to do without one put a tricky problem before the carpenters. The clear span chosen was 58 ft. How was it to be bridged? The solution is extremely ingenious, and as most of the original timberwork survives, it is worth close examination.* The work at York was undertaken during the last decade of the thirteenth century,† that is at a remarkably early date. It antedates by a whole generation the only comparable feat of polygonal timber construction, the Ely Octagon. The model illustrated was made to demonstrate the construction at York and compare it with the familiar model of the Ely Octagon. At York the roof is a vast pyramid of timber built up in three stages and carrying the vaulted timber-ceiling below. The eight principal rafters radiate from the central post, about 64 feet tall, to the corners of the octagon, 2. The central post is sixteen inches thick at the first stage, and is made up of three baulks of timber, cut to an octagonal shape, joined by scarf joints, and pegged with wooden

pegs. Each pair of principal rafters, which measure 18 inches by 12 inches, encloses nine rafters which, instead of radiating from the centre, lie parallel to one another. The central post is firmly wedged at the three main stages between double tie beams. There is a minor stage above which might be termed a fourth stage but for the fact that its function differs from those of the other three stages. They support the compressive strain of the central post and prevent the outward spreading of the principal rafters, and consequently of the whole roof. The transverse beams of the top stage, on the other hand, merely abut the central post and are not continuous from side to side. They therefore have no restraining or tying effect upon the roof. Their purpose is to provide a firm resting ground for the upper ends of the lower principal rafters which terminate at that point, and unlike the principal rafters are not carried to the apex of the roof.

Looking at the model from below, the main double tie beams can be seen, 3, clearly crossing at right angles above the central post. These tie beams had to span 58 feet from the opposite walls of the building, but due to support extension they were required to span 64 feet and the medieval builders found that they could not obtain timbers sufficiently long 1

for their purpose. The central post was therefore secured between two beams about 52 feet long at the first level. These tie beams carry the maximum bending stress. At each end of the double beams, single beams were inserted to span the remaining ten feet to the principal rafters. These



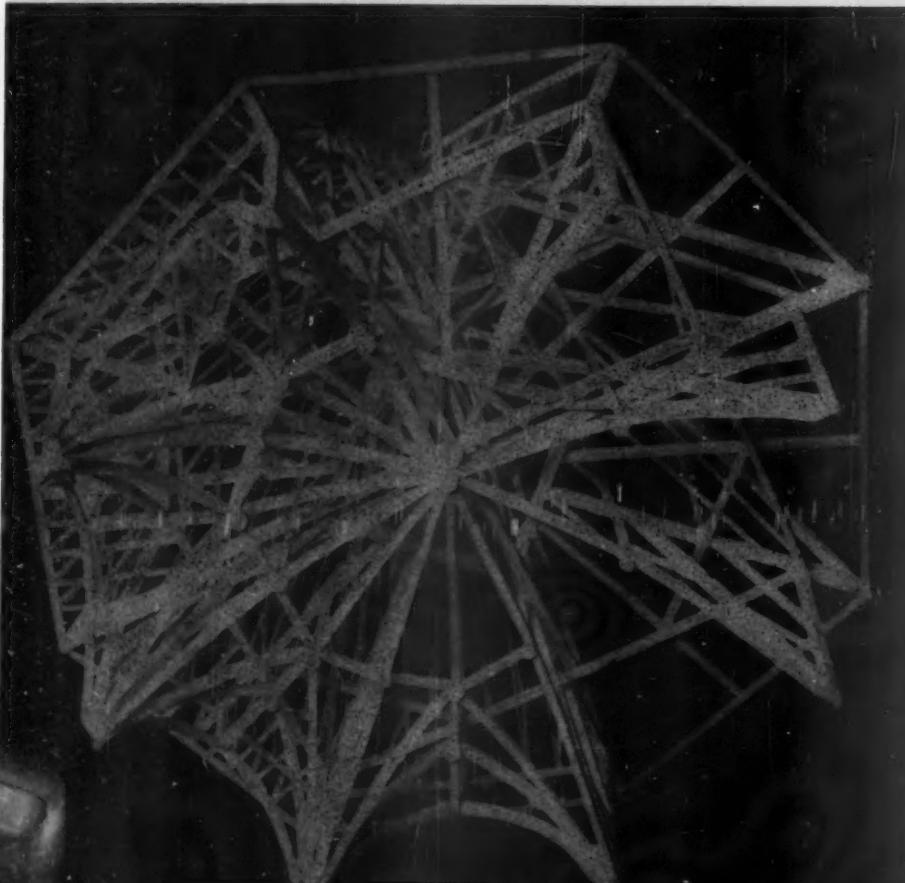
* A more detailed description of this work, which was undertaken at the University of Liverpool, will be published later.

† The title of this article is intended to refer to an approximate date of completion, rather than to the commencement of the work.



2, an intermediary stage of the model seen from above showing the eight principal rafters radiating from the apex of the central post.

3, the model of the structure seen from below showing, at the left, the full network of subsidiary timbers for the rafters and the framing of the wooden vault of the Chapter House ceiling.



single beams were not subjected to the same strain; in fact, the shear stress was the only factor likely to affect that portion of the tie beam. How much of these considerations affected the design of the roof we cannot judge. It seems likely that most of the carpenters' decisions were empirical rather than scientific, but the resulting analogy to a rolled steel joist, having a superimposed load at the centre, and strengthened by additional sheets of steel along the top and bottom about the centre, where the greatest compressive and tensile stresses occur, is of some interest. The arrangement of double tie beams with clamped single beams at their extremities was only necessary for the abnormally large span of the first stage. The second and third stages repeat in plan the pattern of the first stage, but there the carpenters were able to span the full width between the principal rafters with double beams constructed of unbroken scantlings. These beams pinch the king post and are bent so that they close together where they are fixed to the principal rafters. Although the pattern of these upper stages is approximately the same, the beams which lie between the arms of the octagon, on the first stage are not required and are omitted above.

The construction is essentially that of a king post truss built upon three levels. The timber vault is suspended from it. But the roof truss is not only a king-post, because beams project from the walls, and, rising diagonally, support the single beams of the tie. In this way they form a rudimentary hammer-beam truss. This introduces the principle of balanced construction.

This brief analysis shows the manifold and absorbing interest of the construction. Erection was probably as interesting, and a system of carpenters' marks was found, which proves that the timbers were prefabricated. They were cut and jointed on the ground and joints marked by distinguishing signs. Each bay of the octagon had a different sign based upon combinations of the segments of a circle used in conjunction with notches. The circular incisions are $8\frac{1}{4}$ inches in diameter and were cut with a carpenter's brace and bit. Marks were cut into either the top or the side of each of the main beams, and they enabled the carpenters to reassemble the roof correctly on the site. The first assembly may have taken place in the Cathedral Place or miles away in one of the forests; the beams being taken apart after they had been marked, hauled up aloft and reassembled in the correct position. This system of erection is not confined to York. It is known that the roof of Westminster Hall was prefabricated at Farnham in Surrey. But that was in 1895, and so York is once again ahead of comparable examples.



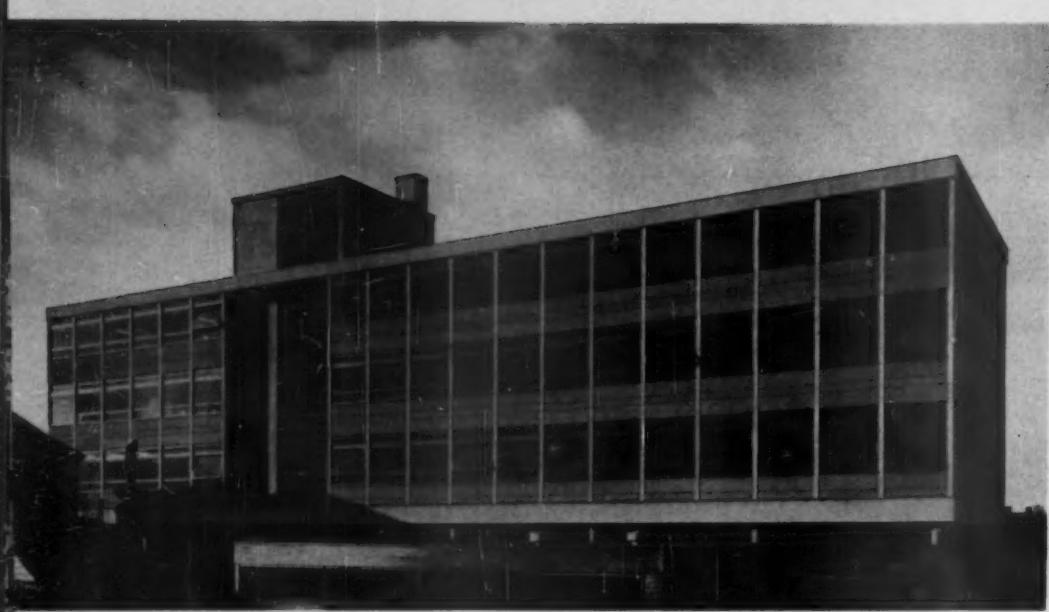
1. west facade, showing covered entrance and recreation room beyond.

OFFICES AT CAMBRIDGE

ARCHITECT: H. H. POWELL, EASTERN REGION, BRITISH RAILWAYS

This building provides new offices for the Traffic Manager of the Cambridge area of British Railways Eastern Region under their decentralization scheme on a site fronting Tenison Road near the railway station. It is divided into two parts; the ground floor contains the entrance hall, enquiry desk, service rooms, some office space and the Rail-

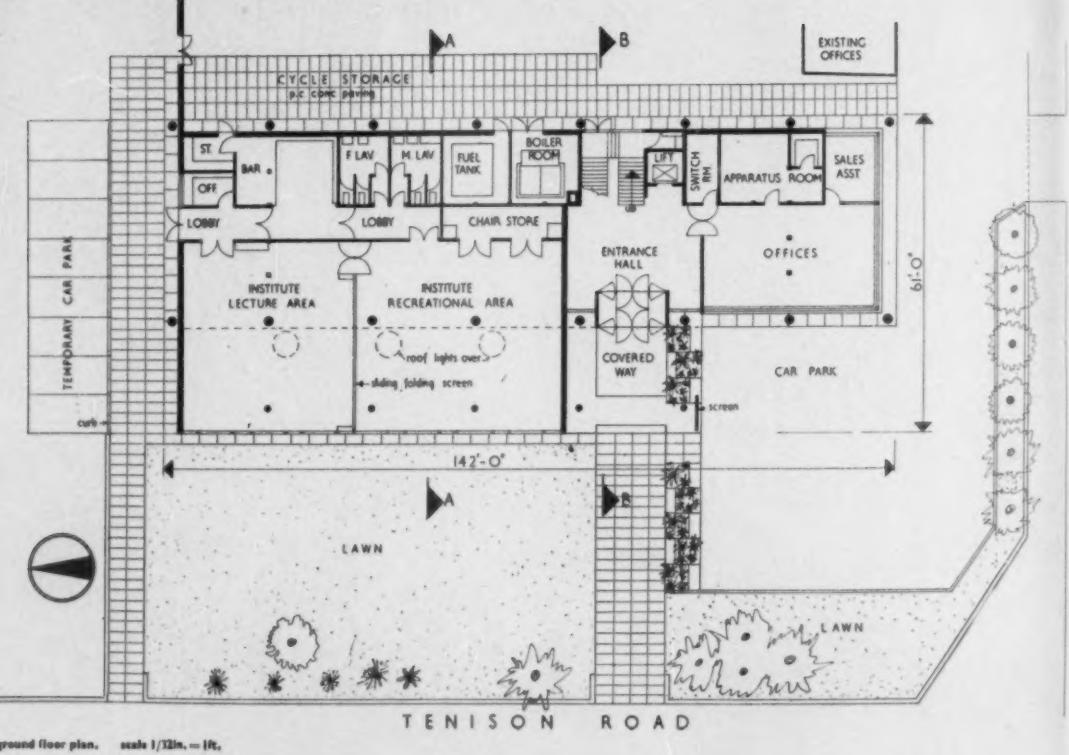
way Institute. The Institute has a separate entrance and consists of a large area suitable for meetings, lectures and social events. This floor is of 'wet and heavy' construction with an in-situ reinforced concrete frame and first floor slab and with brick walls which mostly pass behind the columns leaving them free-standing. The Institute area projects at



2, rear view, eaves fascia and first floor edge-beam are carried across the staircase window.
3, entrance hall, with enquiry desk and the in situ concrete staircase which has a terrazzo finish.

2

offices at Cambridge



ground floor plan. scale 1/12in. = 1ft.

the front of the building and its roof is continued to form a deep canopy over the front entrance. The three upper floors are all offices and are of dry construction using a patent system of prefabricated reinforced concrete, so far used only for schools. The precast prestressed concrete frame rests on the in-situ first floor slab and the external walls are faced with precast concrete panels with exposed aggregate finish and hardwood framed windows. Each floor is an open area divided by demountable glazed timber partitions on a 40 in. grid. The vertical link consists of a lift and stairs at the rear of the building with a perforated hardwood screen which runs right up the rear elevation of the building and forms an illuminated 'backcloth' to the entrance hall.

3





4

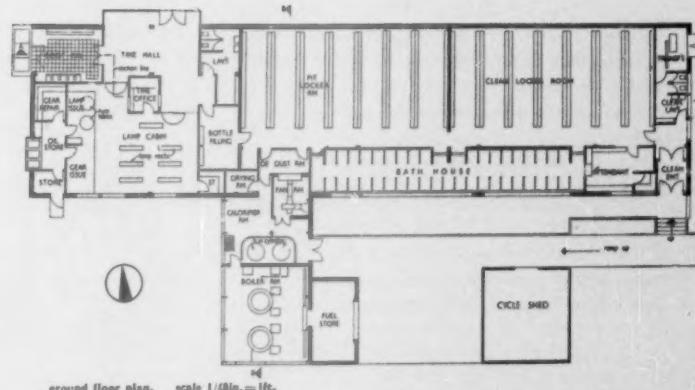
PITHEAD BATHS AT DUDLEY

A new pithead bath on made-up ground on waste from mine workings beside an old colliery in the South Northumberland coalfield. The baths have forty showers and 672 cubicles, and are split into different structural units, the boiler house and the baths themselves. Mass concrete foundations had to be piled through the waste slag to a depth of 13 ft.; reinforced concrete downstand beams span from pier to pier carrying the floor slabs and the buildings above have framed construction with columns centred above the piers. The baths have a reinforced concrete frame and in-situ reinforced concrete roof slab; the boiler house is steel framed with patent aluminium roof of troughed decking. The baths have buff cavity brickwork facing—the bricks being local and produced by the NCB—the boiler house has vertical patent glazing on a rough concrete plinth given texture by painting a retard on the shuttering and bushing the concrete to expose the aggregate.

ARCHITECTS:
RICHARD SHEPPARD
AND PARTNERS

ARCHITECT-IN-CHARGE:
KENNETH STROWLER

4, the 'clean' entrance to the locker room and showers on the right, with the boiler house plant seen through the semi-obscure glass cage beyond.



SPORTS PAVILION AT HAYES, KENT

ARCHITECTS: PITE SON AND FAIRWEATHER

ASSISTANT ARCHITECTS: PETER BOSTON AND ALAN BLANC

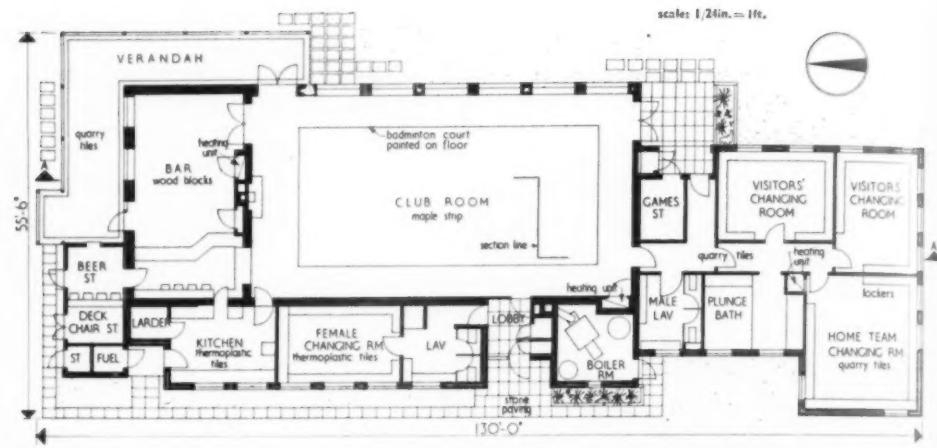
This building in Barnet Wood Road, Hayes, south of Bromley, replaced two existing pavilions and had to be a social centre also with a large club room—big enough to be used for badminton—with ancillary bars and kitchens. The site has a fall of four feet from north to south with views to the north and east. The club room has a structure of three welded steel portal frames carrying a pitched roof, faced with 13 in. solid brickwork, light brown clay facing bricks. The other buildings are 11 in. load bearing cavity brickwork with timber roofs covered with roofing felt.

315

5, view from the south east.



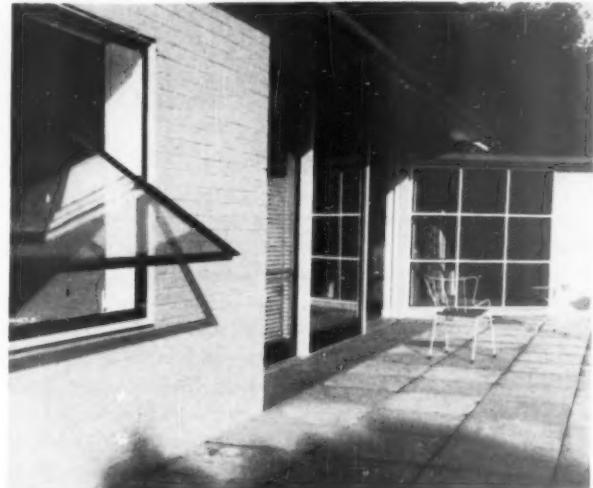
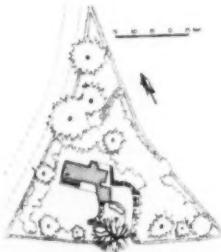
Sports Pavilion at Hayes



HOUSE AT NACTON, SUFFOLK

ARCHITECTS: SANDON AND HARDING

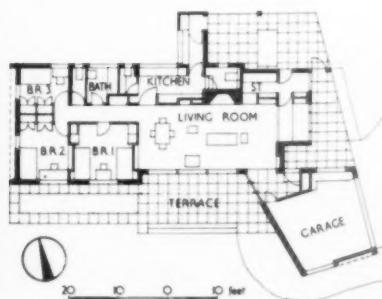
This is the architect's own house on a wooded triangular one-acre site at Shollond Hill, near Nacton, four miles S.E. of Ipswich. It was planned for a middle-aged couple to be compact (1,390 sq. ft., excluding double garage) with as many built-in fittings as possible. The entire living area, 22 ft. by 34 ft., is one room comprising sitting and dining areas, study and kitchen (with fan extraction for kitchen smells). The construction is cavity brickwork with an inner skin of foamed-slag blocks: the facing bricks are common flettons painted grey; the inset plastered gables are dark purple, the eaves and gable soffits lime green. The roof is of built-up bituminous layers finished with a plum-coloured mineral surface. The inside uses the same colours, with large surfaces generally elephant grey, occasionally white and black, and



6, detail of the terrace on the south side of the house. The window and door frames and mouldings are white, the sashes black. 7, view from the south-east. The brickwork is painted grey; the plastered gable is dark purple as a background to the white pergola and the eaves and gable soffits are lime green.



brilliant colours (purple, cyclamen, and chartreuse) confined to small areas needing emphasis. The low hall ceiling is black, the living area ceiling light blue. An automatic oil-fired boiler heats radiators throughout the house and a convector in the living room; refrigerator and boiler are combined in a fridge-heater in the larder.



BOOKS

SCIENTIST AND ARCHITECT

ROBERT HOOKE. By Margaret Espinasse. Heinemann, 1956, 21s.

Robert Hooke's diaries have been in print since 1935, but they are in any ordinary sense unreadable. Mrs. Espinasse has quarried her way through them and built up a very pleasant portrait of Hooke out of the rubble. She is concerned to show that he was not only great but good and very different from the 'melancholy, mistrustful and jealous' person of Waller's biography. She is probably right. For the rest, her book is more a series of studies of Hooke, his work and his world than a straight biography and she has thus not given us what would have been most exciting, an account of the growth and flowering of his powers. In his busiest years Hooke's output of work seems barely consistent with the fact that there were, then as now, twenty-four hours in the day. As with Wren, the temptation is to pile up the facts to show just how fantastically busy he was; whereas the biographer's real task is to show how such busyness became possible and natural to the man. This Mrs. Espinasse does not attempt. On the other hand she does place Hooke intelligibly in the pre-Newtonian world of English science and her accounts of the *Micrographia* and the Cutlerian lectures are admirably clear and readable.

Her chapter on Hooke as an architect, which naturally owes much to Mrs. Geoffrey Webb's study in the *Walpole Society's* volume for 1936–1937, is sound enough, but on this aspect of the man's work there is probably a great deal more to be discovered. Wren paid Hooke a salary for helping him with the city churches, and this help almost certainly went further than Mrs. Espinasse suggests when she says that it had to do with 'the actual construction, as opposed to the designing' of the churches. There are drawings for city churches at All Souls and elsewhere which are certainly not in Wren's hand and are almost certainly in Hooke's. Some of these, moreover, are initialled by Wren, which probably means that he had been shown two or three designs and selected one for approval. It would be going much too far to suggest that some of the churches are not by Wren at all but by Hooke; but the evidence points strongly to the conclusion that there were certain churches whose main features were settled perhaps as simply as by a meeting of Wren and Hooke on the site, Hooke then 'working up' the agreed idea in one or more versions which were submitted to Wren for final judgement.

It has always been slightly embarrassing to attribute *all* the churches *wholly* to Wren, especially because some are detailed in a style which has not the faintest relevance to any of

his personal drawings. One has always felt that there was 'somebody in the office' who knew far less than Wren about the mechanics and refinements of the antique and far more about the rough but serviceable vernacular of Holland. Was this somebody Robert Hooke? Did he ever go to Holland? Mrs. Espinasse tells us that he 'went to sea' for experimental purposes in 1662. Is that all we know?

So far as Hooke's achievement is concerned the problem is marginal, for his architecture is elementary and sometimes childish; there is rarely any heart in it, though a delightful ingenuity does sometimes link it with the mind of one who was, as a contemporary put it, 'as great a master of mechanical inventions as any in the world.'

John Summerson

POCKET HOFFMANN

JOSEF HOFFMANN, *Architetti del Movimento Moderno*, vol. 17. Edited by Giulia Veronesi and Josef Hoffmann. *Il Balcone*, Milan 1956.

Il Balcone is going from strength to strength. After Perret, D'Aronco and Loos we have now a volume on Josef Hoffmann. The knowledge of Hoffmann, who died in 1956, is in this country usually confined to the two illustrations in my *Pioneers* and to what little text accompanies them. That is surely not enough. Giulia Veronesi, author of the *Balcone* volumes on Garnier, Oud and Olbrich, has assembled a good deal more, including the remarkable interiors of the Villa Moser and the Palais Stoclet. The latter point forward to the more classical modern manners of Italy and France in the 1930s, but curiously also to Mies, the former are so similar to Mackintosh's work that an exact date would be essential. Unfortunately we are not given one. 1901–1904 is not enough, since the Mackintosh show in Vienna took place at the end of 1900. The Art Nouveau interior of a shop of 1899–1900, one or two illustrations in Mr. Madsen's Art Nouveau book, and the terrible exterior of the Villa Moser all make it likely that the change in Hoffmann was the effect of a study of Mackintosh. Signora Veronesi goes so far as to say that by 1896 the 'suprema origine eleganza' of the Scots was 'già nota a Vienna.' That can only refer to the first article in *The Studio*. But that article dates from 1897. The whole problem is still far from solved, especially as Mr. Madsen denies its existence and thinks of parallel, independent developments.

What the nearly 50 illustrations in Signora Veronesi's book bring out clearly is that Hoffmann's part in the major European development was played out before 1910, though his style as a designer was personal enough to remain interesting to anyone who is sensitive to the Viennese dialect of an ever more classicizing Central European twentieth century idiom. Occasionally the buildings are almost of a Viennese 'Biedermeier,' occa-

sionally they strike one as alarmingly close to Nazi ideals (page 115). But the best is delightfully and hopelessly Viennese—graceful and 'verspielt,' to use in exasperation an untranslatable term.

Nicholas Pevsner

THE FIRST ROMANTIC

JAMES WYATT. By Anthony Dale. Basil Blackwell, 1956. 30s.

James Wyatt disparaged the design of St. Peter's, Rome, St. Paul's, London, the spire of St. Martins-in-the-Fields, and much, if not all, of Vanbrugh's work; and he was acidulously outspoken on the work of his contemporaries. Unfortunately there is little record of what the latter thought of his own talents.

Any comparison with his contemporaries, omitted for some reason in this acute study of Wyatt in favour of a brief chapter on his reputation, which is quite a different matter, will reveal surely that Wyatt's stature is over-inflated.

His dislike of classical monumentality led him to produce turgid plans with exteriors dull to the point of banality, except for Stoke Poges, which was not his work entirely. Admittedly, Heaton Hall is very fine, as were his classical interiors also. In fact his decorative flair was remarkable and it is by this work that he achieved deserved fame.

Wyatt, at heart, was the first romantic architect, if one accepts James Essex as being a genuine Gothic interpreter. Therefore, it is more the pity that with the exceptional opportunities at his command, he was unable to prove himself the genius that Mr. Dale would have us believe. After all Fonthill was only a superb exercise in décor, while Ashridge was no more than a curious folly of immense panache.

With the omission of much tedious detailed description and the inclusion of some comparative analyses of the work of Wyatt's contemporaries, this interesting but slightly de-personalized book would have had a better balance.

Christopher Gotch

COMPLETE MODEL-MAKER

THE MODERN ARCHITECTURAL MODEL. By T. W. Hendrick; Foreword by Hugh Casson. Architectural Press, 16s.

To most people models are intriguing, quite apart from the designs they represent, and one realizes from this book that not the least intrigued are the model-makers themselves. Apart from the universal fascination of making things, there is endless scope for the imagination in creating ingenious effects from new and unexpected materials, in fact one needs rather the eye for capabilities and qualities of a magician, with which Picasso turned bicycle handlebars and seat into a bull's head. How-

ever, it is easy to be led astray from their great usefulness, and the serious part models can play in the process of design. They are often quite indispensable, both in developing the architect's ideas and in interpreting them to other people, so it is surprising that this is the first book devoted entirely to this subject.

The author deals thoroughly with the whole process of model-making, from a complete list of tools and equipment, and the ideal layout for a workshop, to the packaging and dispatch of the models. A wide variety of present-day techniques is described in detail and there is a very useful list of suppliers of equipment and materials, but the author constantly reminds us of the unlimited possibilities of new materials. The book is illustrated with diagrams by the author and 40 photographs of models mostly made by architects. This should be an encouragement to other architects, for though they may not achieve the technical perfection of a professional, it is they who are most likely to stress the important elements of the design and give exactly the right value to slight projections and mouldings, niceties that it is hard to expect from the professional who quite naturally is chiefly concerned with his craft.

This is an excellent reference book for all architects and architectural students, whether they are model-makers themselves or directing the making of models. May it also encourage designers to allow time for this important part of their work.

Timothy Readie

EXHIBITIONS

PAINTINGS

The retrospective exhibition at Marlborough Fine Arts of the work of the cubist painter Juan Gris, who died in 1927 at the early age of forty, was held in honour of Gris's principal dealer, Daniel Henry Kahnweiler.

This was an unusual event, for the bonds which unite art dealers can only very rarely have taken so gracious a form, and although it is to be hoped that no one is planning a Rouault exhibition in loving memory of Ambroise Vollard, there is no doubt that Kahnweiler richly deserved this tribute from another member of the trade. It was his practical support that enabled Gris to go on producing the works which have become so precious a merchandise.

But as John Russell remarked in his catalogue note, 'Gris was only one of the artists whom Kahnweiler took up at the outset of their careers,' and no doubt a mixed exhibition of some of the cubist masterpieces handled by Kahnweiler be-

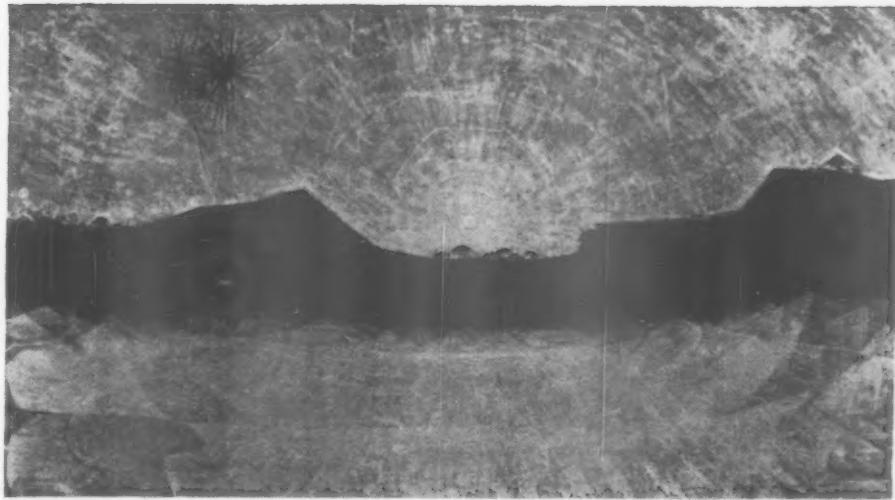
fore the first world war might have made an even more fitting tribute. Perhaps Gris was singled out because he has never been adequately exhibited in this country, and the fifty works which were on view at the Marlborough certainly constituted the largest exhibition of Gris so far held here. Unfortunately, it laid undue emphasis upon his neo-classical phase, and the scrappy representation of his purely cubist period tended to convey the thoroughly misleading impression that it was an experimental prelude to the later work. Nevertheless the change of direction and the fall in quality were so pronounced in the work painted after 1920 that the little picture of a jug and glass reproduced here, 1—a minor example of what he was



doing in 1916—took on the proportions of a major achievement.

The attempt made by the school of Paris in the early twenties to create a twentieth-century classicism based partly on synthetic cubism and partly on half-baked ideas about man as a mechanism was something of a fiasco, but it claimed adherents throughout the world, and many of them, becoming set in their ways, still cling to their grotesque figurative systems with the splendid confidence of Flat-Earthers. The most curious English example is William Roberts who arrived at his present style by way of vorticism. He has a humorous eye for 'typical' scenes from English life, but it isn't always easy to tell whether he is being consciously funny or whether the comic effects are being produced by the inherent absurdity of his figurative system. 'The Baby,' 2, for instance, which was included in his recent show at the Leicester Galleries, looks like a somewhat pointless satire on the nineteenth-century theme of the rewards of poverty, but it is probably intended as a classical rendering of a universal truth.

At the same Gallery, Alan Reynolds has been exhibiting his latest landscapes. They refer with obsessive insistence to the ridge of chalk hills that runs through Kent and Dorset, but they are images of inaccessible regions formed by the mind's eye. The botanical foregrounds have been suppressed to reveal a strange pastoral no-man's-land composed sometimes of diminishing facets, sometimes of converging, undulatory furrows which give the impression that the foreground is anxious to reach the distant ridge of hills as quickly as possible. The hills themselves are not so much hills as delicately carved horizons. One can now see more clearly than before that his paintings spring from needs that are not satisfied by the pleasures of the picturesque. As I remarked in my rejected catalogue note, the persistence with which he stretches the downs across his pictures and hangs the sun or moon above them, 3, suggests that there is a primitive pictograph for a landscape at the back of his mind—a horizontal line with a circle above it—which operates as compulsively as a magic sign. This pictograph may well stand for our situation in the universe,



3

and if so, it is obvious that it has to be manipulated with the utmost circumspection if disaster is to be avoided. His work is a fascinating manifestation of a conservatism that goes deeper than that of his most enthusiastic admirers. His landscapes are the observation platforms of original man, whose hopes and fears were inextricably involved with the rising and setting of the sun.

Edward Middleditch is at his best when he fills a large canvas with plant life. In his painting of an unkempt field of cow parsley, exhibited two years ago, he found a contemporarily matter-of-fact way of approaching the natural scene, and by scattering his naturalistic specimens of cow parsley across almost the entire picture surface in artful emulation of the laws of chance succeeded in creating a powerful image of natural anarchy. It looked like developing into a blithely English alternative to abstract expressionism, but it remains an isolated achievement. The best picture in his recent show at the Beaux Arts—a configuration of spiky fronds



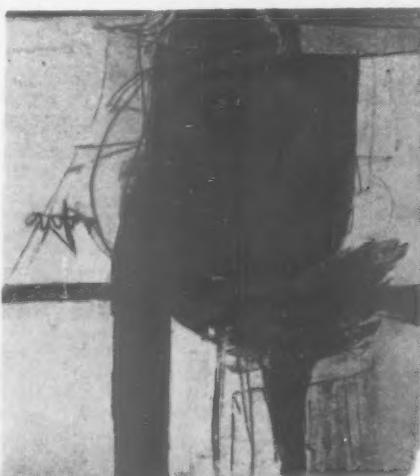
4

called 'Spanish Garden,' 4, made a tentative gesture in the same direction, but the show as a whole was very disappointing, and appeared to be the work of a literal-minded man trying to force his way into the world of poetry.

The subjects of his best drawings, which are straightforward studies of sunflowers, palms and cactus, disclose his interest

in Van Gogh and Sutherland, but when he transfers them to canvas he tries to turn them into 'uncanny signs' by putting them into clumsy and melodramatic juxtaposition with starry skies or huge butterflies, or a braying donkey, which 'intrudes' in the manner of Sutherland's 'Intruding Bull,' and outrageously enough, these coarse and over-large paintings, which reduce his well-drawn specimens to the level of the most banal of literary symbols, appear to have been inspired by the visionary subtleties of Odilon Redon.

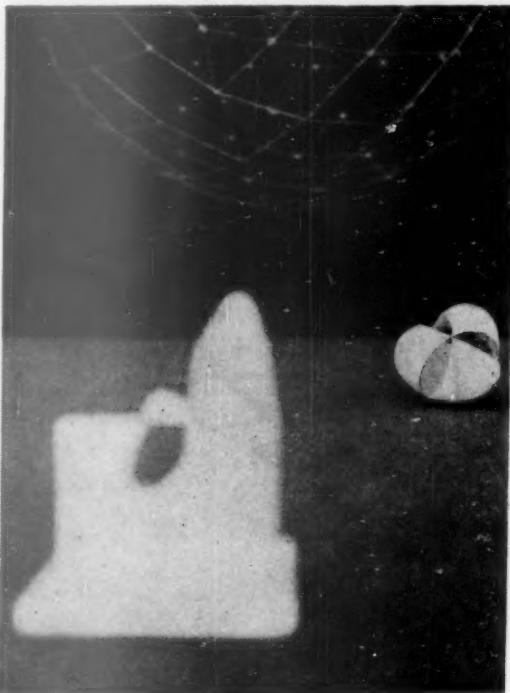
Roger Hilton's abstracts look unpre-



possessing in a distinguished sort of way. He paints non-figurative pictures with evident signs of stress and torment which manage to suggest that he is struggling to give a faithful account of something not far removed from Cézanne's 'little sensation'—but a 'little sensation' about his own personality as a painter rather than about nature. Most of the pictures in his show at the ICA bore the dates of their execution as substitutes for titles, and the one called 'October, 1956,' 5, gropes and blunders in a marvellous way, and records his doubt, distaste and delight with a queer, muffled eloquence.

Robert Melville

Three-dimensional models of mathematical functions must be ranked among a very select body of ever-renewable totemic objects, like the Eiffel tower, racing cars, Gabon masks and Times Square by night, that every generation of modernists must discover and re-interpret for themselves. Such interpretations are never in terms of the ambiente in which the object was created—few ever investigate African ritual or Grand Prix strategy—but in terms of the intellectual and aesthetic pressures of their discoverers' own time. At least one view of a recent exhibition staged by Harvard architectural students* of the models in the collection of the Harvard Mathematics department gives a clue to what these pressures are at present, 1—



1

objects isolated on an indeterminate surface while a spheroid looms above, creating a science-fiction image whose real import, one suspects, is the current prestige of non-Euclidian geometries. It is well worth noting that some of these models, such as 2, go back to the early years of the century, and that the present generation of Harvard mathematicians are apparently uninterested in them, whatever architectural students may feel, whatever engineers like Catalano and intellectual freebooters like Buckminster Fuller may say.

At least one of the functions of such an exhibition is to be corrective, and a metal and string model of $z(x^2 - y^2) = ax^2 - by^2$

* Peter Chermayeff, Robert S. Gordon, Henry Wood.

D'Arcy Thompson's *Growth and Form*, nevertheless reveals a complicated, three-dimensional freedom in their disposition in space, that far outstrips even the least inhibited aspects of either Fine or Popular art.

P.R.B.

TOWNSCAPE

THE MAXBURG, MUNICH

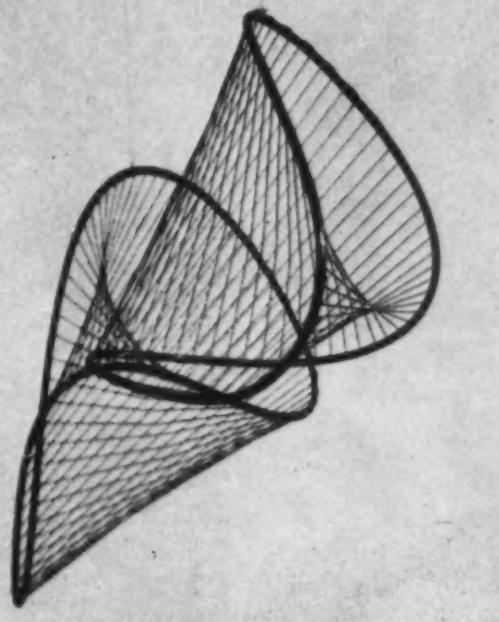
An ancient German town-planning maxim reminds us that Wer da bauet an der Strassen, muss die Leute reden lassen, which may be approximately Englished as "If you build in public, you must let the public have its say." This venerable adage has been much employed in

*connection with the rebuilding of the Maxburg in Munich, the old fort, bombed and demolished, that stood in the heart of 'historic' Munich and once formed part of the city walls. Its replacement by a pedestrian precinct of shops and offices, roused considerable opposition, the prize-winning schemes of Theo Pabst and Sep Ruf, which were telescoped to give the executed design, 1 and plan, caused real distress to that kind of *gemütlich* German opinion that, thirty years earlier, had hounded the Bauhaus from Weimar.*

The lever of the argument was the tourist trade; who would come to Munich to see an *Allerweltsglaspalast*, these people asked, when they could see similar glass palaces all over the world? They have received a double answer; one from the illustrations of the new Maxburg that have begun to appear, as one of the attractions of Munich, in the world press; the other from the old Maxburg itself. The surviving tower that has been retained, 2 (and

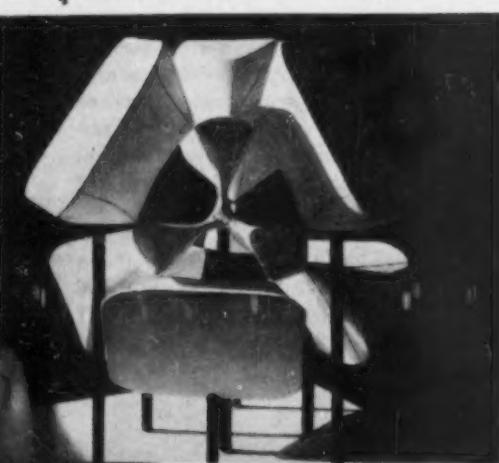
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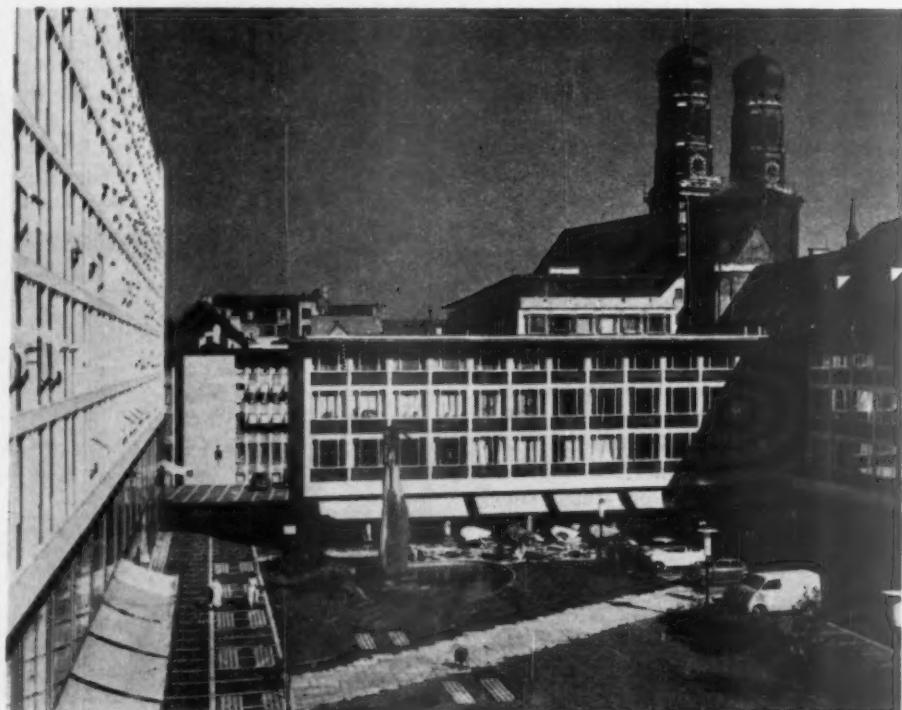


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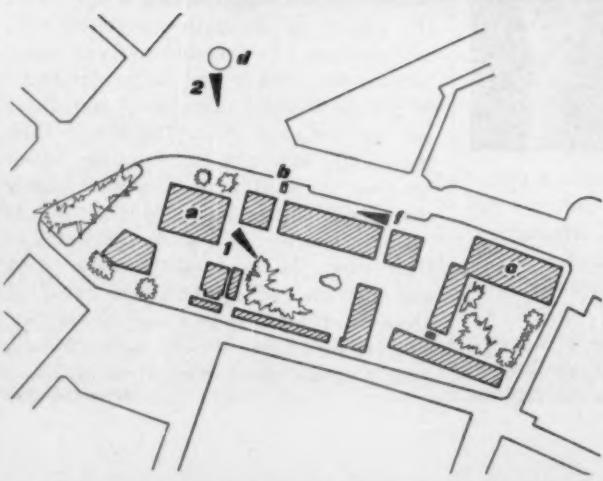
while composed entirely of shapes that belong, unmistakably and unintentionally, to the popular ikonography of forms based on the cathode-ray tube, or to a more 'high-brow' ikonography derived from



4



1, the internal piazza of the rebuilt Maxburg site in Munich, with the gable of the Carmelite Church just visible at the left, and the towers of the Frauenkirche beyond, right.





2

2. Wendel Dietrich's tower, the only part of the old Marburg to survive, seen over the Wittelsbach fountain.

frontispiece to this issue, p. 298), so brilliantly as a live memorial to the vanished past, is far from a uniquely Munich object. The neat geometry of its coloured plasterwork, that mates so happily with the neat geometry of the contemporary buildings that it serves as a stair tower, must have been even more international, at the time that Wendel Dietrich built it in the late fifteen-eighties, than the new buildings are, for the style was already domiciled in France (e.g. Fontainebleau) as well as its native Tuscany. The tower as it stands is not only a masterly piece of putting old with new and a reminder of Munich's vanished past, it is also a persistent ridiculer of the folly of 'Keeping in Keeping.'

M. Santiago

TRAVEL

AFRICAN TEXTURE

Mud is the traditional building material of the African. In Nigeria the full range of mud buildings can be seen from the single storey shack in wattle and daub to the Emir's palace, but in the Northern Provinces in particular the possibilities of the material have been exploited to their fullest extent. In Kano City Moslem tradition and African ingenuity combine to produce textures and highly decorative

relief work which represent traditional art and craftsmanship at the height of their development.

Here is an unadorned mud wall, 1, in a merchant's house. The texture is formed with broad sweeps of the builder's hand and is an efficient precaution against crazing in the sun.

The Old Native Treasury, Kano, 2, has a blank façade, except for small high windows, surmounted by phallic symbols and overhanging waterspouts. The whole remaining wall space is covered with a loosely designed Islamic fret.

This house in Kano, 3, is more recent. In



1



2



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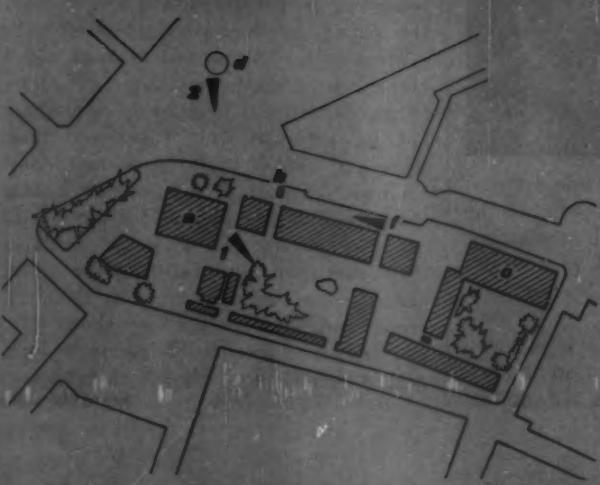
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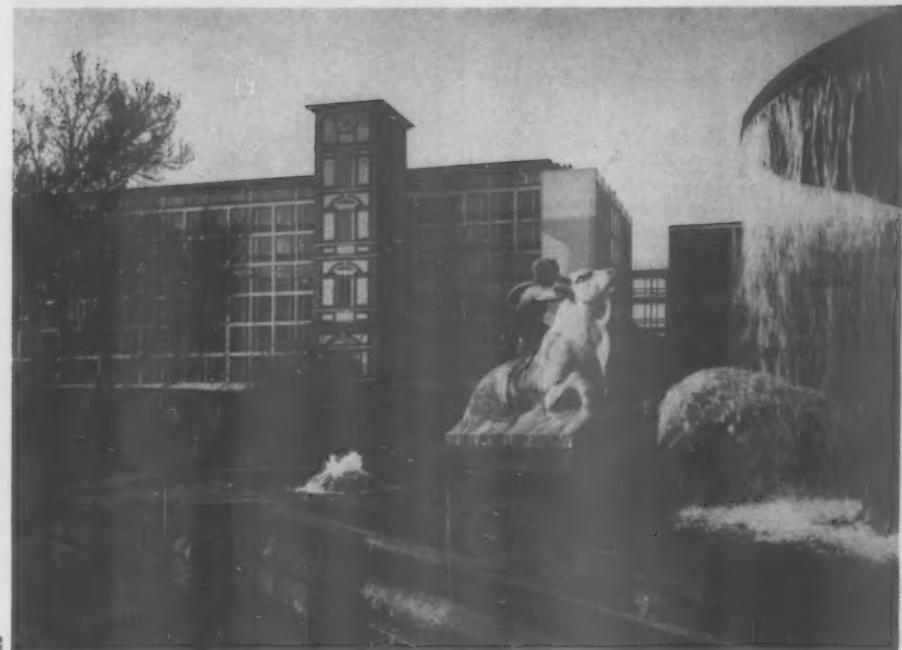


1. The internal plaza of the rebuilt Maxburg site in Munich, with the gable of the Carmelite Church just visible at the left, and the towers of the Frauenkirche beyond, right.



viewpoints
1. from spire, page 278.
1. Illustration 1.
2. Illustration 2.

buildings
a. carthaus,
b. church's tower,
c. Carmelite Church,
d. Wheatsheaf fountain.



2

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1



2



3



4 modern work such as this the relief is more formalized in design and general arrangement.

Windows are small to cut out the high glare coming off the sun-drenched ground. To reduce reflection ceilings are often given an all-over pattern similar to that applied to external walls.

4, is an example of recent europeanization. A bicycle and a motor car serve as the central motifs against a traditional background.

Arthur M. Foyle

COUNTER-ATTACK

62. **West Bretton, Yorks W.R.** (*Surveyor's Dept., County Council and Ministry of Transport*). Here is nonsense, 1, on A.637 near West Bretton: how many more signs are there going to be saying the same thing? This is presumably a result of the Ministry of Transport regulations permitting larger signs; what a strange attitude of mind that doesn't take down the old



when putting up the new. Another consequence of these signs is that they are now no longer in scale with the triangles above them. The M.O.T. issued no instructions about the triangles, and no local authority has bothered to look for itself, so that the result is another set of absurd miscouplings.

63. **Abbey Street, Faversham, Kent** (*Town Council*). Abbey Street, one of the finest streets of its kind in the south of England (see AR, July, 1956) may now be saved. After years of neglect the Housing Committee have recommended to the Council a face-lift for the whole street. This is splendid news, particularly as it may have been partly due to the original S.O.S. in the REVIEW: we hope that Faversham will find this to be a paying proposition—in terms of increased tourist traffic and saving of expense on new housing—as well as a worthwhile one; it deserves to.

64. **Hinkley Point, Somerset** (*County Council*). The widening of the lane to Hinkley Point atomic power station has on the whole been fairly painless (like the road to Bradwell: it is intended to illustrate both in greater detail when the sites are finished). For most of the length new hedge-



rows are being planted, but in two cases concrete posts and wire have been used, with disastrous effects on the pattern of the countryside. The first case is where farmers asked for it as the hedges were too much trouble, 2; this seems unreasonable as they are being compensated for the loss of land anyway, and in any event a better type of fence ought to have been found. The second case is to provide sightlines at corners, 3; this seems com-



pletely absurd when there will be very little traffic on the road after the power station is built: like the attempt to demolish buildings at Stoke Ferry (AR, January, 1958) it will increase the danger by giving the impression that people can roar out of the side road with impunity. This is a classic case of blindly following a rule of thumb. The lay-bys are also far too grandiose and permanent, 4; if they have to be provided whilst construction is in progress they need only have been roughly metalled without a kerb (another rule of thumb applied blindly) so that earth could



4 have been shovelled over when the lay-by was no longer needed.

65. **St. Nicholas Church, Bristol** (*Diocesan Board and City Council*). St. Nicholas was a famous 1750 Gothic building, now blitzed; the tower and spire are to be kept but the nave walls (still complete and sound) are to be demolished and a garden laid out on the site. This would be disastrous to the views of the unblitzed part of Bristol from the south because the walls of St. Nicholas are a vital part of the foreground. It is also utterly unnecessary, for if the building cannot be roofed over and used as an assembly room, a garden inside the walls would have far more value as an oasis than one surrounded by traffic, and would be partly out of the weather into the bargain.

66. **High Wycombe, Bucks.** (*Arts Association and Borough Council*). The Arts Association asked the Borough Council in 1956 and 1957 to hold a meeting to report progress on replanning the town centre. This very reasonable request was met first by a polite refusal and then by local government obstructive tactics—if the Association desired to take the matter further they should set down their views in writing. They did so, in a punchy memorandum summarizing what was wrong with High Wycombe. We hope it will produce a better civic spirit among the borough officials; for what can possibly be gained by refusing a public meeting to explain the council's plans? In fact if the A.40 traffic could be diverted around the centre there might be a magnificent opportunity for a pedestrian linear market between church, Guildhall and Shambles: the townscape here—when you can see between the cars—is among the best in the Home Counties.

Progress Report

10. **Westgate Fields, Chichester** (AR Oct. 1957). The result of the Public Inquiry has been announced: of the two schools proposed by the County Council only one is to be allowed, at the west end of the Fields, and the Minister has removed from the Development Plan that portion of the Ring Road which crosses the Fields, a remarkable step. This is very encouraging, as it means that more than half the Fields will remain as they are, i.e. rough pasture, not tidied up as 'public open space.' If the school buildings are put at the extreme west end of the site and the playing fields are given the minimum of fencing the effect on the Fields could be reduced still further. The best solution might be a hedge on the boundary line and single trees planted beyond it to carry the eye through to the countryside beyond the railway. The Counter-Attack bureau played a large part in opposing the proposals; in fact counsel for the County Council paid it a large and doubtless unintended compliment in saying that if it had not been for the Counter-Attack bureau it is unlikely that there would have been an inquiry. The bureau will report on the effect of the new school when it is built.

SKILL

HOUSE IN HIGHGATE by Lance Wright

As might be expected when the client is a technical wizard of the stature of Ove Arup, the house that Erhard Lorenz has designed for him in Highgate, described on page 324, offers more than one point of technical interest, in terms of over-all structural conception, in post-tensioning techniques, and in the handling of door and window trim.

The first point concerns the structure. This comprises reinforced concrete floors and roof articulated to form a spine beam running down the long axis of the plan and supported, beneath the spine, on slender columns, and round the periphery partly on loadbearing walls, partly on columns. The concrete intermediate floor provides a convenient bed for underfloor heating and the floors themselves provide a base for the internal skin of insulating p.f.a. blocks.

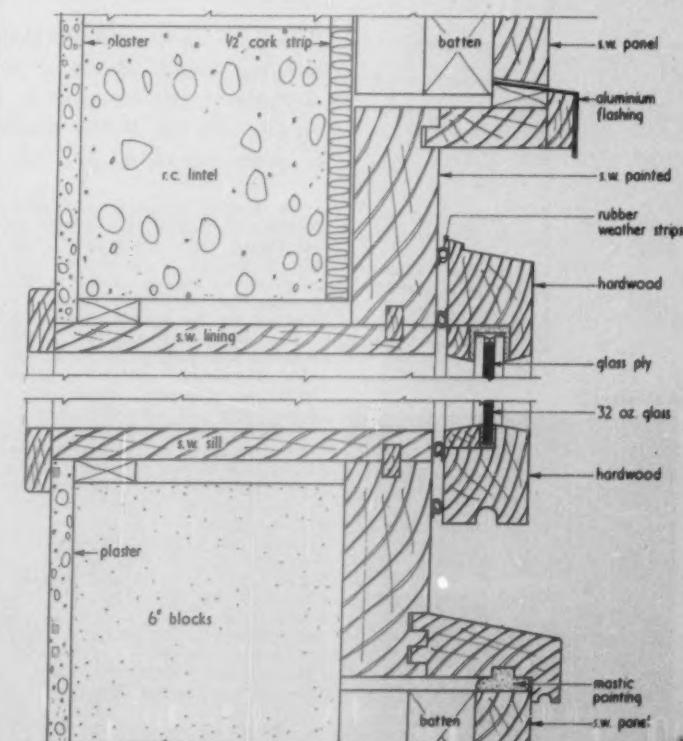
Pretensioned 'pencils'

Apart from this the house was made the occasion for trying out a technique involving the use of prestressed concrete 'pencils.' These are 1½ in. square rods of prestressed concrete pretensioned in the factory by means of one 0.2 in. high tensile wire. The value of these 'pencils' is that they provide a foolproof means of placing reinforcement in concrete and of ensuring an adequate cover. For the concrete, being factory-made, is of reliable quality and the workmen have only to lay each 'pencil' flat on the shuttering to ensure that

the reinforcement falls in the right position in the slab depth. The ultimate application of this idea is in under-developed countries where site labour is an uncertain quantity. In this particular application it has the advantage that it can be used in conjunction with a low strength concrete with a high insulating value. The same 'pencils' were also used to tie back the facing slabs of a retaining wall.

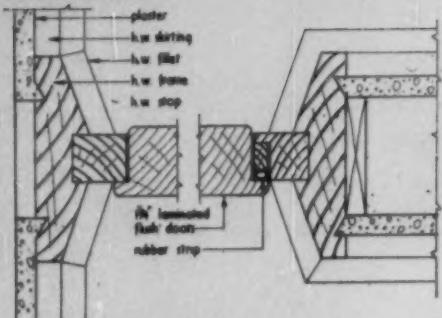
Door and window trim

The second point to notice is the architect's approach to door and window trim. The problem he set himself was how to provide the uninterrupted linings of the 'twenties with the technical knowledge of the 'fifties. This is done, in the case of the windows, by breaking the lining back against the outer face of the p.f.a. blocks (see drawing) and by hinging the window (which is double weatherstripped and, where the occasion calls for it, double glazed) to the 'window fascia' thus formed. The effect of this, externally, is to give the window a double frame; the effect internally is to remove the bulk

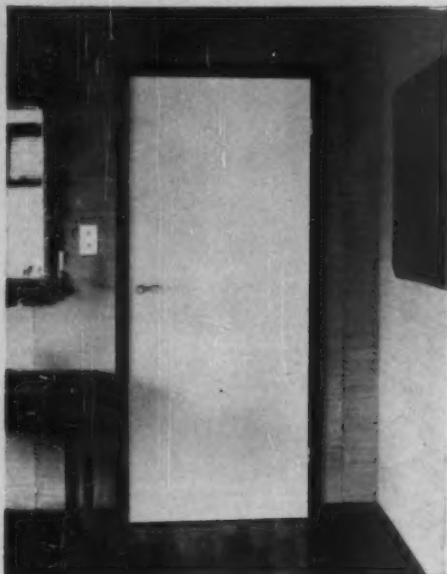


1, detail of window head and sill (see photos 4 and 5, over page).

SKILL



2, door details at jambs.



3



4



5

3, internal door detail.
4, window detail, exterior.
5, window detail, interior.

of the frame altogether from the line of vision, and to leave only the dark hardwood internal bead visible.

Another unusual detail which belongs to the same family of effects is that of the internal doors. Instead of rebating the frame the architect has chosen to rebate the door. This means that from the inside of the room, the door masters the frame and the frame appears as a recess between door and wall. This is partly an illusion deriving from the fact

that the frame itself is of a dark hardwood, for the frame in fact projects forward to master the plaster edge. It represents an interesting reversal of the Georgian practice of letting the door recede and of bringing the frame forward. Its result is to make the door appear, not a convenient means of closing a hole in the wall, but as an independent plane. Lastly, since the door is placed in the middle of the wall thickness it will appear the same from both sides.

CONTINENTAL DOOR FURNITURE

by John Sharp

What is the matter with the British hardware industry? Why do so many British Architects choose their hardware abroad? Reviewing the all-important field of door handles, John Sharp describes the best examples he has been able to find, both Continental and British; and, in answer to our question, suggests that the British trouble is due first to our habit of springing the handle from the rosette or plate instead of from the lock, and second to our unwillingness to employ good designers.

On looking through a random selection of British and Continental catalogues, one is struck by the vast ranges of some of the British ones, wherein one may be lucky to find two or three reasonable designs, in contrast to the limited selection in their continental equivalents, of which a high proportion are acceptable. Of course, there are exceptions to this on both sides, Dryad being a fine example of a limited, carefully selected range, to which new additions are made only for very good reasons. It is a pity that the British stock lines have to be so numerous and so mediocre—a result presumably of the desire to cater for every eventuality and mode of expression, as there is no doubt that the handles and locks are well made of sound, hard wearing material; and it may well be that, with a vigorous and enlightened design policy in bronze ware, they may be able to reciprocate the present increasing import of aluminium handles from the continent.

It is now over five years since the more interesting ranges of door furniture were seriously imported, when

their fresh appearance, exciting forms and high quality of finish won an acclaim that has gained in strength ever since. British manufacturers, conscious of this but not understanding the full background of the designs, decided that they could at least do the same, if not better, and a number of new British handles were introduced which are exact reproductions of the lines of the most successful continental lever handles. They are offered in the full range of materials, including bronze, but it is interesting to note that there is in fact very little call for the latter.

As the handles appeal by their fresh line, so the rosettes, plates, and escutcheons appeal by their simplicity. The possibility of a small circular plate is the result of the positive, non-play methods of fixing of the handle spindles, common to all continental manufacturers. Many of the Swiss and German designs have been specially commissioned, and it is surely time that our ironmongery producers stopped copying their continental rivals and commissioned some native designs.

There are a few basic technical

differences between British and continental practice which have to be borne in mind when comparisons are made. . . .

British and continental practice

British lock practice seems to have been based on the use of a knob for operation. As the knob is perfectly symmetrical, it is not essential that it be returned to the same position after each operation; and in the cheaper locks, at least, there is a limited amount of free play between the follower and the other parts of the latching mechanism. Lever handles, on the other hand, must be returned to a horizontal position and the British practice is to fit each handle with a return spring, so overriding any free play that there may be in the lock, and relieving the latch return spring from any other loading, 1, 3. This practice has led to the almost universal use of free spindles with British lever handles, that is, there is no direct fixing between the handles on each side of the door, and all the loading comes on the screws

[continued on page 355]

continued from page 354]

securing the plates or rosettes; in effect, this means that only large plates are possible, for with small plates which do not clear the body of the lock only short screws can be used, and these are easily pulled off.

Continental practice, on the other hand, seems to have been based on the universal use of lever handles. This fact has influenced the design of locks so that, with the handles, they form an integrated operating mechanism, with no unnecessary duplication of components. Any possible free play in the following mechanism is eliminated, and stronger springs than in British practice are used, which are capable of returning even a heavy, eccentrically loaded handle to the normal horizontal position. 2. A number of devices have been evolved for securing the two handles to the spindle and so obtaining a direct transfer of load through the door to the rosette or plate on the other side. There are two main types—those that secure the spindle to the handle, 4, 5, and those that give through fixing between the plates, 6, 7.

continental door handles

In the survey that follows a few examples of the products of the main exporting manufacturers are described. Most of the important ones have agents in this country, but a few examples are shown that may only be obtained direct from the manufacturers.

SWEDEN By far the largest producer of door furniture in Scandinavia is Stenman A.B., which is part of an international concern producing a complete range of hardware articles. They use mass production processes as far as possible, and so are able, despite import duties, to be highly competitive.

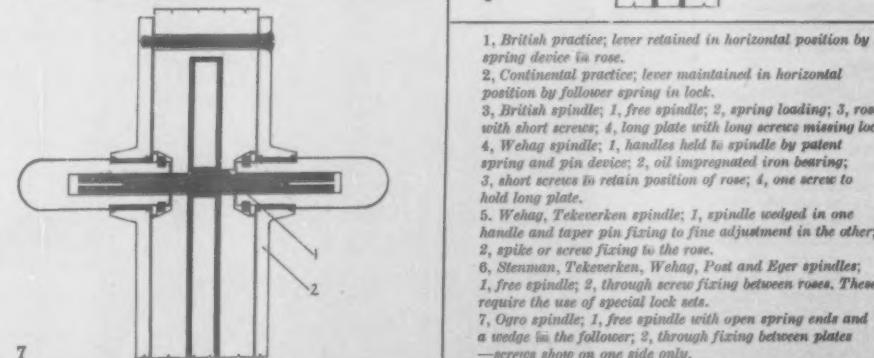
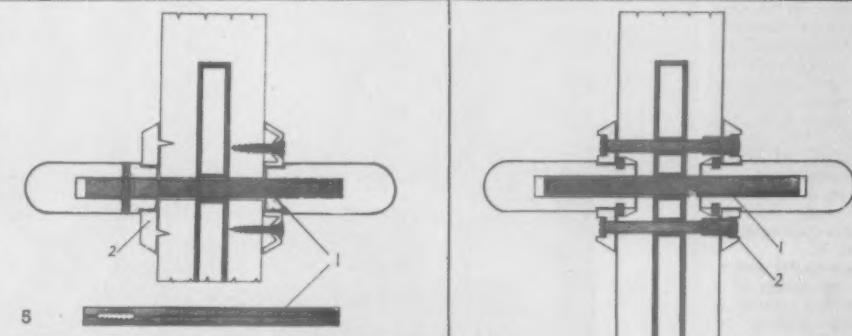
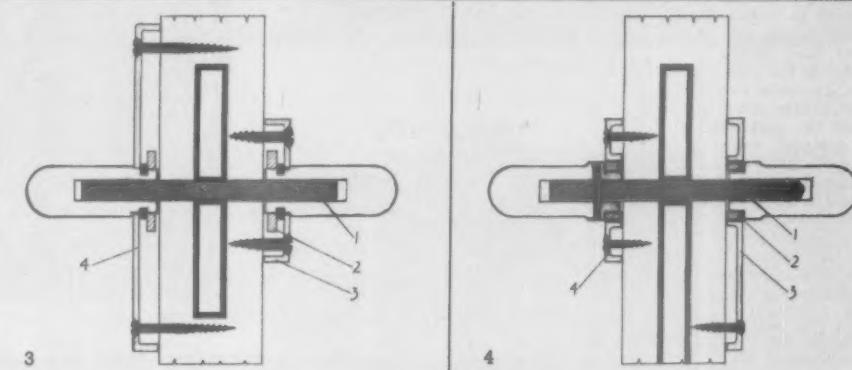
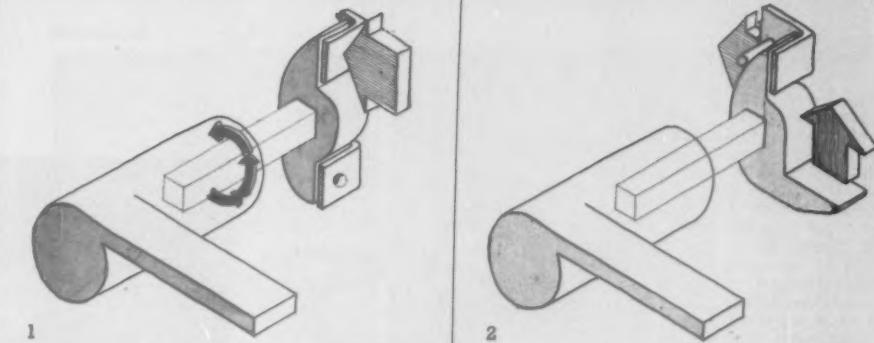
They have a range of low cost designs that are based on tubular forms, the shank being a simply bent, drawn brass tube, on to which is fitted a grip of brass or plastic, all the metal being finished with chrome. The rosettes are circular and of die-cast brass; all the handles are through fixed by methods 5 or 6. 8 is a simple, all metal version, 9 has a wooden grip.

A refined rosette is also available that has a screw cap to cover the heads of the through fixings.

These cheap handles have just that quality of simplicity and directness that should arise from the application of mass production processes to such articles, and which is so lacking in the equivalent British product. There is also a selection of die-cast brass, and of sand cast nickel silver handles, which are both finished in bright nickel plate, 10. The through fixing that is supplied with the circular rosettes of these handles necessitates the use of the same company's locks, but both are readily obtainable in this country.

GERMANY Most of the German manufacturers work in aluminium alloy, using the sand-casting process followed by the necessary finishing and polishing. The aluminium is anodized to give a hard-wearing protective and colouring layer. There is usually a colour range from silver through deep gold to black to choose from. This anodizing is then given an additional protective layer—usually applied in several coats—of very hard clear lacquer.

The traditional handle is a very flamboyant affair, 11, with a positive termination to the shaft, from which descends an S shaped lever, which is crowned by an operating pad. This heavy looking and asymmetrical handle demands a positive lock spring

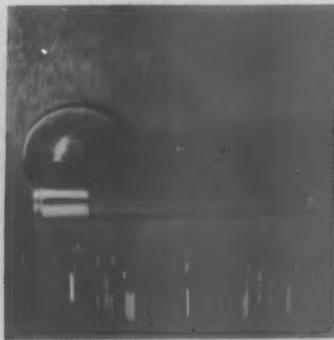


- 1, British practice; lever retained in horizontal position by spring device in rose.
- 2, Continental practice; lever maintained in horizontal position by follower spring in lock.
- 3, British spindle; 1, free spindle; 2, spring loading; 3, rose with short screw; 4, long plate with long screws missing lock.
- 4, Wehag spindle; 1, handles held to spindle by patent spring and pin device; 2, oil impregnated iron bearing; 3, short screws to retain position of rose; 4, one screw to hold long plate.
- 5, Wehag, Tekleverken spindle; 1, spindle wedged in one handle and taper pin fixing to fine adjustment in the other; 2, spike or screw fixing to the rose.
- 6, Stenman, Tekleverken, Wehag, Post and Eger spindles; 1, free spindle; 2, through screw fixing between roses. These require the use of special lock sets.
- 7, Ogle spindle; 1, free spindle with open spring ends and a wedge in the follower; 2, through fixing between plates—screws show on one side only.

SKILL



8, simple metal handle.



9, handle with wooden grip.



10, nickel plated handle.

Swedish

SKILL

to maintain it in position, and hence it has dictated the development of the locks.

This form has given rise to many of the successful current patterns, which still maintain the positive termination to the spindle and a broad end to the handle that is inviting and receptive to the hand, 12.

The plates and rosettes show a freedom of form that is not apparent in the British ranges, largely due to the presence in them of springing mechanisms. The simplest form is the circular plate, with the fixing screws shown; a refinement has a screw cap that covers them with very little increase in thickness, 13, 14. The matching escutcheons to these rosettes are of the same dimensions. Combined escutcheons and plates also show the advantage of the positive spindle fixing, in that only one screw is used, 15. Some of these plates are asymmetrical about the vertical axis, and when well designed, complement the handle form.

Simplicity is also achieved in some of the larger plates by the use of through fixings so that on one side of the door no screws are visible at all, 16.

There are at least four German concerns producing handles of a high order of design.

Wehag This range, including doorstops, letter plates, etc., have been available for some time in this country. Cast aluminium is universally used, and in order to eliminate the wear that would occur between the handle and the rosette, a special oil-soaked porous cast iron bearing is incorporated as a standard fitting. Through fixing is also used for rosettes and plates.

This firm has a patent method of fixing the spindle described in 4, one handle being secured by a taper pin, and the other by a wedge washer. Otherwise they use the split spindle and taper pin method, 5.

15 shows a highly successful design by Schumacher that by means of a skilful balance of form, creates a handle of considerable beauty. 17 shows one of a range of three simple handles, where the flat operating pad fuses easily with the round spindle; despite the use of large radii the design remains crisp.

Ogro The products of this firm are newly available in this country. They are normally available as aluminium castings, but may be obtained in solid stainless steel. The plates have been adapted to take a spring loading device to comply with British practice. Where through fixing of roses is required, matching continental locks are obtainable, 18.

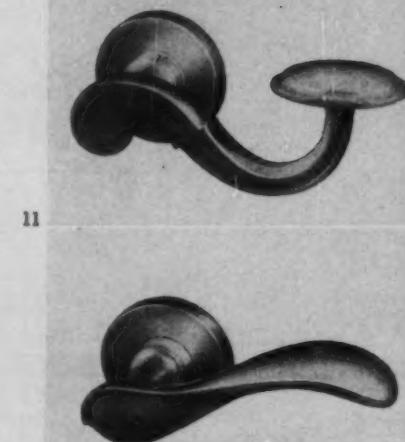
An interesting back plate incorporating a cylinder lock with a lever handle is shown in 19. This can only be used with a German yale lock, specially designed with a long bolt for centre mounting on a door. A cranked handle that has a very pleasant line with a screwless plate.

Ernst Nofen This is a smaller concern that has no agency at present. It markets an interesting handle, 20, that is symmetrical about the horizontal axis, and has a straight cut on the corner to give a thumb bearing, the section so produced repeating the plan at the end.

Sidleen This is a British trade name for another German firm, who have recently introduced a range over here. The handles have Nylon bush bearings, and they are being marketed with specially adapted British locks, having a smaller spindle hole and a stronger spring, with positive loading on the follower. The rosettes and plates have been adapted to take

[continued on page 357]

German



11

12

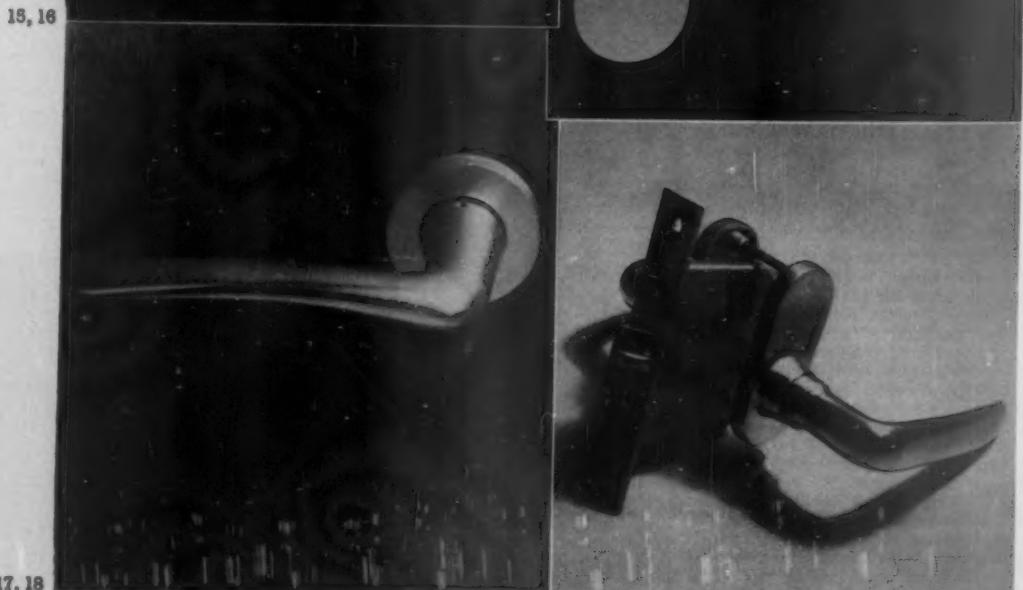
11, traditional German design. 12, development of traditional design.



13 and 14, simple plate with screw-on cover.



15, 16



17, 18

15, handle with combined escutcheon and plate by Wehag. 16, handle with through fixing. 17, simple handle by Wehag. 18, handle and lock by Ogro.

continued from page 356]

British Key forms, but otherwise they retain the lightness of the German patterns, 21. The agent is making a special feature of a light golden anodizing finish that has the appearance of nickel silver.

HOLLAND Post and Eger produce a range of aluminium fittings that are particularly resistant to sea atmosphere corrosion. They use the split spindle and through-screwing between plates or rosettes for fixing, the rosettes having Nylon bushes. They have agents in Britain. The handle forms generally follow German patterns.

FRANCE A chromium plated handle of considerable refinement is amongst the range produced by the Paris firm of Fontaine, 22.

DENMARK We have found one Danish example: a stainless steel handle, 23, fabricated from sheet material and designed specially for hospitals and for use in corrosive atmospheres.

SWITZERLAND There are only two firms of interest to us in Switzerland and they produce a range of die-cast, German silver handles, many of which are of a high order of design. They are solid handles and therefore relatively heavy. The finish is either a polished nickel plate or a very pleasant dust nickel plating which has a goldish tinge with a matt surface. A particularly pleasant handle in use, especially when set low, is that manufactured by INCA, shown in 24. It has a subtle plan form. The normal practice is to fix the split spindle permanently into one handle, and fit the other by the pin and toothed slot method, so transmitting the load through the door. These spindles are of narrower section than British ones, so must either be wedged in the lock, or special locks must be used. In keeping with this the rosettes are either circular or of the minimum sized round-headed diamond or rectangular forms necessary for provision of two small retaining screws.

These handles may be obtained direct from the makers in Switzerland, who have no agency in Britain.

British door handles

Up to a few years ago it was almost impossible to obtain door furniture of any great merit, either in variation of colour, finish or form. During the last year or so there has been an improvement in the position and now, by careful selection, there is a fair range to choose from and we might well be led to suppose that this has been caused by a change of heart on the part of the manufacturers; and that the proud boast of a few years back that nothing new is possible in lever handles has been proved wrong by a process of analytical design. Alas, the evidence is to the contrary. Much that is new from British manufacturers in the last few years is either a copy on the broad lines of, or even in some cases exact reproductions of, continental designs.

Dryad's new handle, 25, is probably the most significant British design. It is both pleasant to hold and visually satisfactory. The rose contains a spring loading mechanism, and has a projection to meet the handle shaft and a patent fixing device that only shows screws on one side.

Gibbons will produce special handles to architects' requirements in any material, and in fact have a range owing much to German originals that were specially commissioned. However, they have

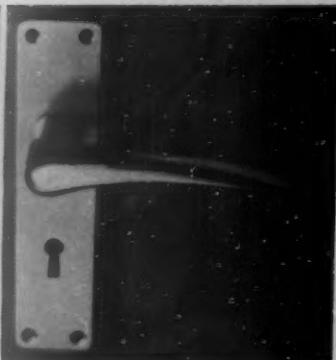
German



19, plate incorporating handle and cylinder lock by Ogro.



20, handle by Ernst Nofen.



21, handle by Sidleen.

French



22, chromium handle by Fontaine.

Danish



23, stainless steel handle.

Swiss



24, polished nickel handle by INCA.

British



27



25, 26



28

25, new Dryad design.
26 and 27, handles by Gibbons.
28, spring loaded handle by Parker, Winder and Achurch.

SKILL

British



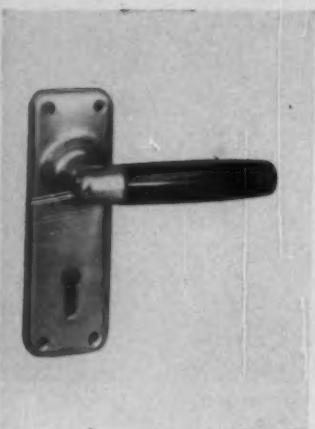
29



30



33



34

29, another handle by Parker, Winder and Achurch.

30, handle by Ernest Newman with spring loaded rose.

31, handle by K. S. Neale.

32, bronze handle by Edwin Showell.

33, 34 and 35, handles by Cartwright showing Swedish influence.

36, plastic handle by Evered.

37 and 38, typical examples of bad design.

several good designs of their own of which 26 and 27 are examples.

The rosettes have spring loading devices in them, and are normally used with Pitt spindles. Gibbons have also introduced a screw-on cover to cover the fixing screws, but because of the spring loading they are very bulky in appearance.

Parker, Winder & Achurch wisely offer long plates with their spring loaded handles, 28. This design owes much to a Stenman original, 10; while another, 29, owes much to a Wehag design, 6.

Ernest Newman produce an excellent design, 30, which has a spring loaded rose with a screw cover. This example is in nickel silver.

K. S. Neale are producing a limited selected range that promises to be good if the present trend is continued. 31 is an attempt at an integrated design of plate and handle, that, despite its shortcomings, is quite successful.

Edwin Showell have also introduced some new designs, some of which owe much to German inspiration, 32. This pleasant example that has a wide operating end is in bronze with a BMA finish.

Cartwright have similar designs to the Swedish handles, 33, which lose

in their clarity of form when fitted with a normal vertical plate, 34. Their range is interesting and includes combinations of wood and metal and plastics and metal. 35 is a new design, specially commissioned to be an answer to the continental imports. The designer seems to have tried too hard; the sharp lines are not pleasant to feel and they do not contribute to the form.

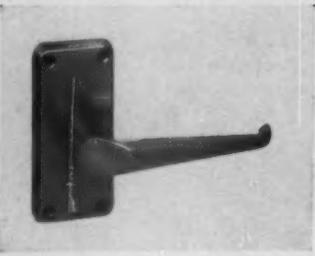
N. F. Ramsay have a limited range of designs in a special aluminium alloy known as Marinalium, that is highly resistant to sea atmosphere.

Evered have in their plastic range a 'continental pattern' which is a pointer to the refined possibilities that are open in plastics, 36. It uses the pin and tooth grip, 7, for fixing.

However, despite these foregoing examples, it is depressing to find, advertised in a recent architectural magazine, a new design suitable for contemporary interiors, 37, showing a complete lack of understanding of any design precepts, not only being visually ugly, but uncomfortable to use, with a flat plate quite lacking in form. One's depression increases on looking at the rest of the range of this company, a subsidiary of an American firm, 38 being a typical example.



31

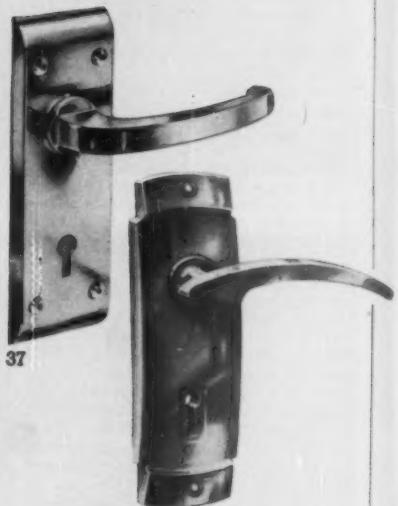


32

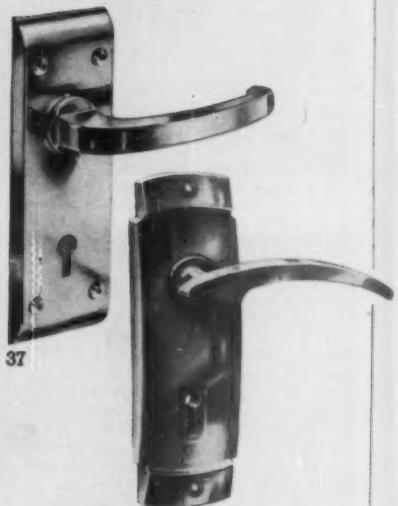


35

36



37



38

List of manufacturers and agents

Swedish

Tekaverken AB
Aug Stenman AB

Charles R. Kirk, 66 Cannon Street, E.C.4.

German

Wehag

Alfred G. Roberts, 182 Upper Thames Street, E.C.4.

Ogro

H. & C. Davis, The Pavement, S.W.4.

Erno

Ernst Nofen, Heligenhaus, Dusseldorf.

Siddeen

Associated Brassfounders Ltd., Old Oak Lane, London, N.W.10.

Dutch

Post and Eger

H. & C. Davis, The Pavement, S.W.4.

French

Fontaine

Fontaine et Cie, 181 Rue St. Honore, Paris.

Danish

Ruko

Charles R. Kirk, 66 Cannon Street, E.C.4.

Swiss

(Injecta AG)
INCA

Teufenthal, Aarau, Switzerland.

British

R. Cartwright & Co. Ltd.

17 Fleet Street, Birmingham, 3

Dryad Metal Works Ltd.

Sanvey Gate, Leicester

Evered & Co. Ltd.

23 Albemarle Street, London, W.1

James Gibbons Ltd.

St. John's Works, Wolverhampton.

K. S. Neale

Machin Road, Erdington, Birmingham, 23

Parker, Winder & Achurch

636 Broad Street, Birmingham, 1

N. F. Ramsay & Co. Ltd.

6, 7 & 8 Charlotte Square, Newcastle-upon-Tyne

Edwin Showell & Sons Ltd.

Stirchley, Birmingham, 30

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THE INDUSTRY

Asphalt Handbook

From the point of view of this column an established material like asphalt is at a disadvantage, since there is nothing new to be said about it. The Natural Asphalte (sic) Mine-owners and Manufacturers Council make up for this by saying what there is to be said with unrivalled clarity and comprehensiveness. For this, as readers may remember, they were awarded a 'certificate of exceptional merit' by the RIBA and the Building Centre in the trade literature competition last autumn. Their latest publication is the fourth edition of *Application of Mastic Asphalte* which covers the three subjects: Roofing, Tanking and Damp-proof Coursing, and Flooring. With literature like this to be had for the asking the architect has no excuse for making mistakes.

The Natural Asphalte Mine-owners and Manufacturers Council, 94-98 Petty France, S.W.1.

Quarry Directory

We have received a copy of a new publication *The Quarry Directory*, published by the British Stone Federation. This sets down under each major stone type (i.e. granite, limestone, sandstone and slate) the names of all the quarries now working commercially with the addresses of the owners. Note, all the quarries, not merely those owned by members of the Federation. This is a useful reference and may be obtained from *The British Stone Federation, 70 Victoria Street, London, S.W.1.*

Wimpey Builds

When the history of the 'forties and 'fifties comes to be written, historians will have to take care to notice how much of the development of our technical knowledge is due to a small number of very large organizations. If they omit to do this they will have no excuse, for it has become the custom for these great organizations to issue publications from time to time describing what they have done. One such—perhaps the most handsome of them all—is *Redevelopment in Wimpey No-fines Concrete*. This is a record of what this pioneering Coventry firm have been up to: it is a very proud record, amounting to 86,349 dwellings completed prior to December, 1956. The book contains photographs, many of them in colour, progress photographs, finished exteriors, interiors, staff at work, plans, diagrams, typical details of no-fines construction and charts. It is of limited use to architects in the sense of supplying technical information, since its object is not so much to explain how things should be done as to give confidence that Wimpey's can do it.

George Wimpey & Co. Ltd., Hammersmith Grove, London, W.6.

Plumber's Hardware Described

One of the most interesting pieces of recent trade literature is a booklet published by Associated Builders Merchants Ltd., entitled *Building and Plumbing Economics*. This title is misleading; for what the booklet really does is to take in turn the

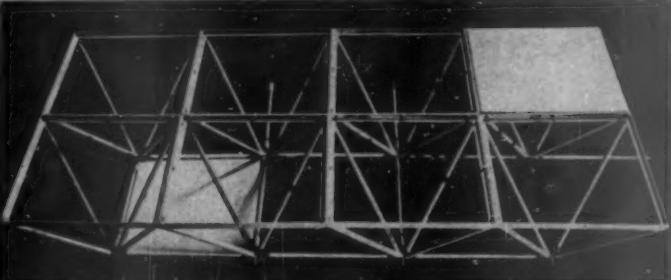
various standard products which ABM have launched and to discuss their history and the motives which led them to be modified to their present form. The reader is given interesting and clear accounts of little contests with foreign competition, freightage regulations, water boards, and not least of all the BSI (who are, for instance, entertainingly trounced for having standardized the plastic w.c. seat without having taken adequate counsel—and with disastrous results). Not all the standard products marketed by ABM will be approved of: the ABM sink, for instance, has great advantages. It is cheap to make, as it has a back waste you can put a pail underneath without fouling the trap, and its overflow is beyond reproach—but it looks terrible. In this, however, it is the exception; for on the whole ABM products have a good visual quality. But whether the architect finds himself in full agreement with each final product or not, it is of immense value to him to hear about its antecedents and why it takes the form it does; the more especially when the facts are given

to him (as they are here) in the language of the Information Sheet and not that of the advertisement. This booklet can be obtained from *Associated Builders Merchants Ltd., Peters Hill, Upper Thames Street, London, E.C.4.*

Space Frames Off The Peg

It is surprising that our increasing need of wide spans, coupled with our appreciation of the structural advantage of continuity and the economic advantage of mass production, have not led, long before now, to the marketing in this country of a space deck system. This lack has now been supplied by Space Decks Ltd., who are marketing a steel space frame made by the locomotive manufacturers, Denings of Chard.

The units of this space frame (called 'Space deck') comprise a hollow square (4 ft. by 4 ft.) of rolled steel section, to the corners of which are welded four standard tubes. These meet at a point which thus becomes the apex of an inverted pyramid. The 'apex piece' to which these tubes are welded is threaded to receive four tie bars. The square



1, detail of space deck with two panels fitted.

[continued on page 362]



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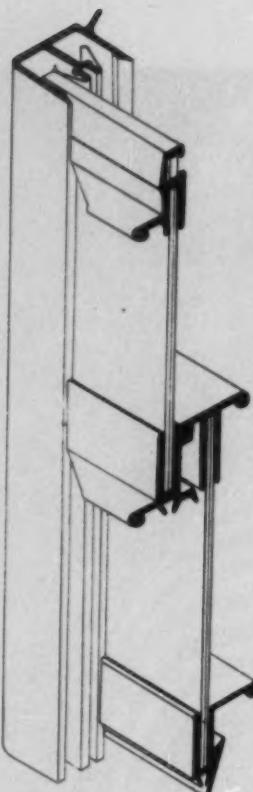
continued from page 360]

frames which form the top surface of each unit are bolted together and the apices of each unit are joined one to another by means of the tie bars. The whole can thus be put together on the ground by unskilled labour and can be lifted into place by crane. There are two standard depths: 11 ft. 6 in. for roofs and 4 ft. 4 in. for bridges. Spans of up to 200 ft. can be covered. One particular advantage of this type of construction is that the designer has great freedom in the placing of supports. Cost varies inevitably for each job, but the company quote an approximate price of 4s. 6d. per sq. ft. for spans of 60 ft. and 10s. per sq. ft. for spans of up to 200 ft. both supplied and erected. *Space Decks Ltd., Locomotive House, Buckingham Gate, London, S.W.1.*

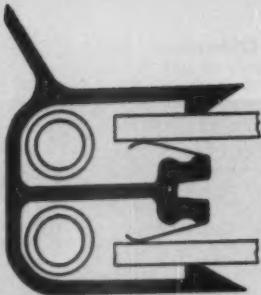
Aluminium Sash

Though aluminium has much to be said for it as a material for making windows, it is generally considered to be expensive because the raw material itself is expensive. Any approach, therefore, which aims at confining the aluminium to the delicate parts seems likely to prove successful. That is what has been done by Aluminium Building Components Ltd., who in their 'Warwick' range of double-hung sash windows combine aluminium sashes and sash case with standard EJMA wood surrounds. An interesting aspect of this system is that the sashes themselves have no side framing: the glass merely passes into the side rails where it is clipped against the bearing surface by stainless steel weatherstrips (see drawings).

Aluminium Building Components Ltd., Central Chambers, Weston-super-Mare, Som.



2. the fine tolerance to which the window is manufactured makes it a reliable mechanical component. The interlocking meeting stiles and the capillary grooved head and sill members help to make the window completely waterproof.



3. the glass, unframed along its height, slides in the side rail between the flanges of the aluminium extrusion and the stainless steel non-deteriorating weatherstrip, assisted by stainless steel helical springs.

CONTRACTORS etc

Fairlawn Primary School, Lewisham, S.E.23. Architects: Peter Moro in collaboration with the LCC. General contractors: E. H. Smith (Croydon) Ltd. Sub-contractors: Structural steelwork: Humphries Hollom Ltd. Heating installation: A. G. Manly & Co. Metal windows and curtain walling: Henry Hope & Sons. Electrical installation: Grierson Ltd. Felt roofing: Vulcanite Ltd. Balustrades and railings: Allen & Greaves Ltd. Suspended ceilings: G. C. Horsburgh & Co. Precast terrazzo: Kendell's Flooring Ltd. Sanitary fittings: Stitson's Sanitary Fittings Ltd. External timber cladding and internal timber cladding: Leslie Bilsby Ltd. Precast paving slabs: The Liverpool Artificial Stone Co. Ironmongery: Alfred G. Roberts Ltd. Metalwork: A. Arden & Co. Wood block flooring: Vigers Bros. Ltd. Quarry tile floor and wall tiling: Roberts & Burling Ltd.

Fairlands Infant School, Stevenage. Architects: James Cubitt & Partners in association with C. H. Aslin, Herts. County Council. General contractors: Elkins & Co. Sub-contractors: Steel frame: Hills (West Bromwich) Ltd. Roof deck: Universal Asbestos Mfg. Co. Heating installation: Weatherfoil Heating Systems Ltd. Windows: Gardner Sons & Co. Wall blocks: Dow-Mac (Products) Ltd. Wood block floor, thermoplastic floor: Hollis Bros. Ltd. Roofing felt: Permanite Ltd. Flush doors: Jayanbee Joinery Ltd. Venetian blinds: Tidmarsh & Sons. Fibrous plaster: Claridges (Putney) Ltd. Macadam playcourt: Constable, Hart & Co. Ironmongery: James Gibbons Ltd. Gates: Hills (West Bromwich) Ltd. Electrical installation: C. Bysouth Ltd.

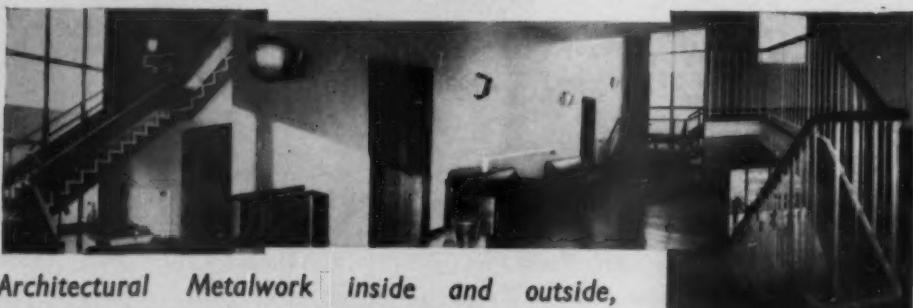
L.C.C. Spencer Park Secondary School. Architect: Professor Sir Leslie Martin, M.A., Ph.D. General contractors: Gee, Walker & Slater Ltd. Sub-contractors: Steel frame, glazed, concrete and timber cladding, floor slabs and woodwool roof: Hills (West Bromwich) Ltd. Heating ventilation, hot water and gas: A. G. Manly & Co. Cold water and fire services: Gee, Walker & Slater Ltd. Electrical services: Thorpe & Thorpe Ltd. Sanitary fittings: T. A. Harris Ltd. Pressed steel water tank: Braithwaite & Co. Ironmongery: H. & C. Davis & Co. Precast concrete duct covers: Atlas Stone Co. Tar paving: A. C. W. Hobman Ltd. Terrazzo paving, W.C. partitions: Mosaic & Terrazzo Co. Cork flooring: Korkoid Decorative Floors. Linoleum: Michael Nairn & Co. Accotile flooring: Newchate Asphalt Co. Timber strip floor: Vigers Bros. Ltd. Timber block floor: Hollis Bros. Ltd. Joinery fittings: Gee, Walker & Slater Ltd. Waterproofing: Tretol

[continued on page 364]

Architect: JOHN H. D. MADIN, Dip. Arch. Birm., A.R.I.B.A., Chart. Arch.



ENGINEERING and ALLIED EMPLOYERS ASSOCIATION Headquarters

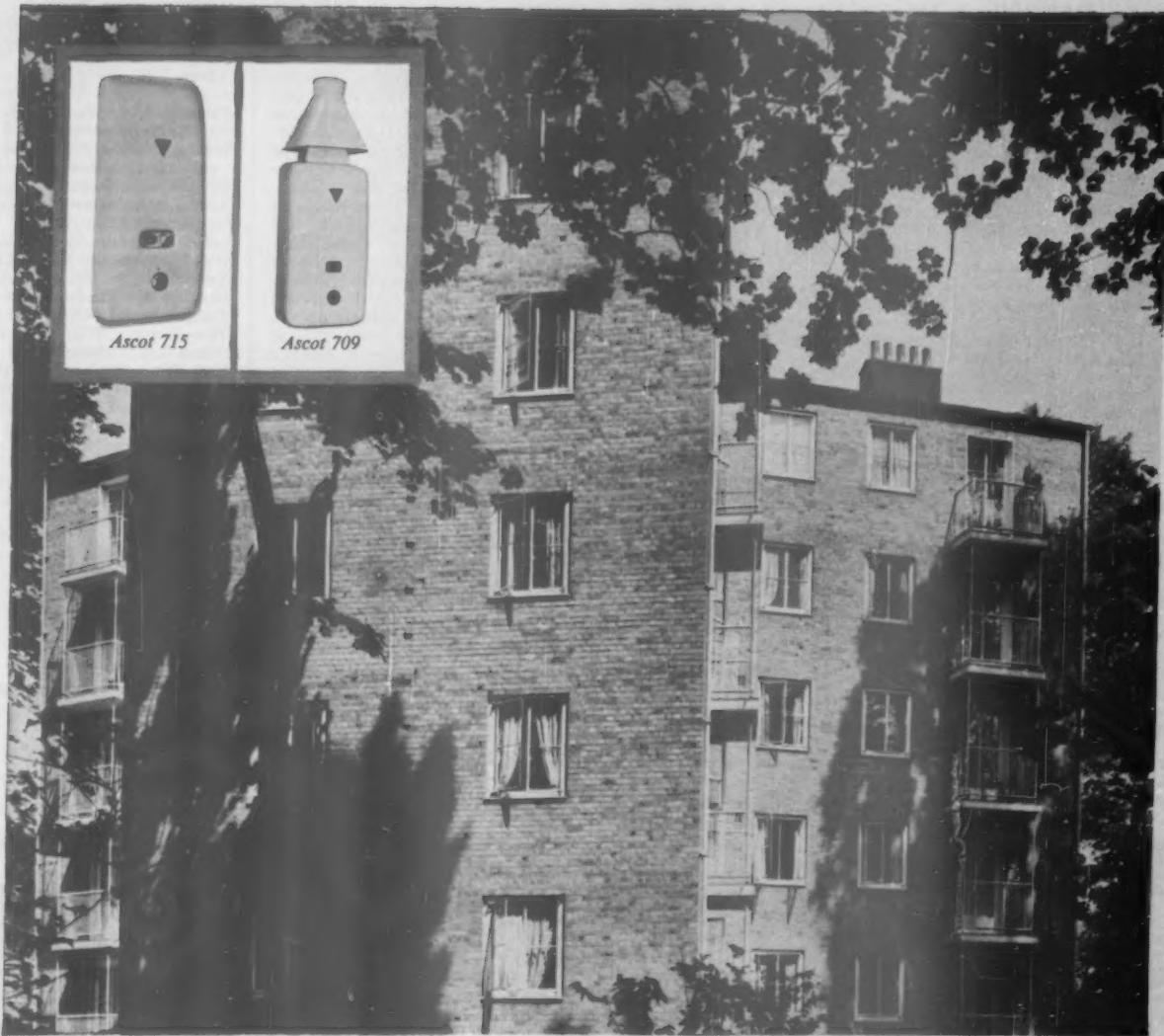


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Chulsa Estate, Beckenham : View of Block 3 from the South.

ASCOT IN NEW HOUSING (6)

Beckenham Borough Council's Chulsa Estate in Crystal Palace Park Road, Beckenham, comprises 172 flats and maisonettes in 13 blocks. Ascot multipoint instantaneous gas water heaters were chosen to give a comprehensive hot water service to each of these since the flexibility and compactness of Ascot installa-

tions enabled the architects to make the best possible use of the space available for the Estate.

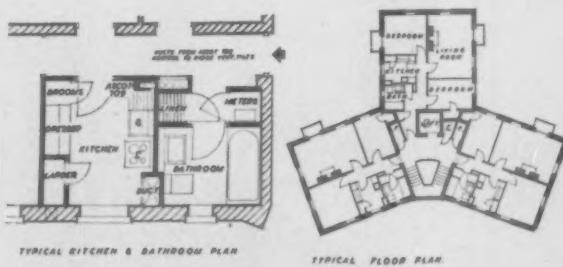
In some blocks, Ascot 715 "balanced flue" multipoints were installed: the planning and load-bearing requirements of the "star blocks", one of which is depicted above, were, however, found to be better served by the installation of Ascot 709 multipoints, each with an asbestos flue carried up into the roof-space and terminating at the ridge with a vent tile.

RESPONSIBLE AUTHORITIES

J. Dove, A.M.I.C.E., M.I.Mun.E.
(Borough Engineer & Surveyor)

James and Bywaters,
5 Bloomsbury Street, W.C.1
(Architects)

S. G. and A. Agombar,
109 Elmers End Road, Beckenham
(General Contractors)



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continued from page 362]

Ltd. **Roofing felt:** Durable Asphalte Co. **Vermiculite ceiling panels:** Millsons Ltd. **Acoustic tiles:** H. W. Cullum & Co. **Sliding screens in assembly hall:** E. Hill Aldam & Co. **Window control gear:** Teleflex Ltd. **Roller shutters:** Potter Rax Ltd. **Staircase, balustrades and kitchen hood:** R. Smith (Horley) Ltd. **Fume cupboards sliding doors:** Quicktho Ltd. (1928); **Entrance gates:** T. W. Palmer & Co. (Merton Abbey). **Cycle stands:** Alfred A. Odoni & Co. **Plastic letters and numerals:** The Lettering Centre. **Paints:** Jensen & Nicholson Ltd. **Cement glaze:** Cement Glaze Ltd. **Wallpapers:** Coles, Sandersons, J. Line; Arthur Sanderson & Sons; John Line & Sons. **Clover leaf perforated hardboard:** Bech, Neale & Co. **Wareite photographic mural:** Bakelite Ltd. **PVC fabric over stage and on rear folding doors:** ICI. **PVC fabric under servery counter:** Ioca Ltd. **Monoseal treatment to western red cedar cladding:** Turner, King & Shepherd Ltd. **Phenoglaze to internal woodwork:** Nu-finishes Ltd. **York stone pavings:** Johnson Wellfield Quarries Ltd. **Art stone pavings:** Modcrete Ltd. **Stage curtains designed and made by Gerald Holton.**

Mr. Arup's House, The Grove, Highgate. **Architect:** Ernard Lorenz. **General contractor:** John Laing & Son. **Sub-contractors:** Heating and hot water installations: Benham & Sons. Plumbing and cast iron drainage: J. H. Shouksmith & Son. Electrical installations: Holliday, Hall & Stinson. Plastering: Pollock Bro. (London) Ltd. Wall and floor tiling: S. A. Forbes & Son. Glazing: Aygee Ltd. Hoist: The Titan Lift Co. Linoleum floors: Catesby's Ltd. Tarmacadam: General Asphalte Co. Metal balustrading: Scaffolding (Gt. Britain) Ltd. Aluminium windows:

Williams & Williams Ltd. Juncker's parquet floors: James Webster & Bro. **Insulite glazing:** Pilkington Bros. Ltd. **Built-in joinery work:** Andrew A. Pogram Ltd. **Precast concrete steps:** Girling Ferro Concrete Co. **Paving:** Nonslip Stone Co. **Sanitary fittings:** Adamsez Ltd., Shanks & Co.

Interiors, Flat 13. **General contractors:** Fredk. Sage & Co. **Curtains and carpets:** Catesbys Contract and Export Ltd.

Echo Board Room. **Alterations, decorations and furnishings:** Catesbys Contracts and Export Ltd. **Lighting fittings:** George Forrest & Son Ltd.

Stamford Hill Boys' Club. **Decoration, furniture and fittings:** Catesbys Contract and Export Ltd. **Lighting fittings:** Rotaflex (Great Britain) Ltd.

Offices, Tension Road, Cambridge. **Architect:** H. H. Powell, A.R.I.B.A. **General contractors:** Gilbert-Ash Ltd. **Sub-contractors:** Wood block flooring (Atufloor): Bennetts Wood Flooring Ltd. **Electrical installation:** Beective Electrical Co. **Felt roofing, tanking and lining:** Cambridge Asphalte Co. **Plumbing installation:** T. R. Freeman & Sons. **Lightning conductor:** J. W. Gray & Son. **Terrazzo paving:** Jaconello Ltd. **Glazing:** Mustill Wallis & Co. **Quarry tiling:** Parkinsons (Wall Tiling) Ltd. **Suspended ceilings:** J. A. R. Robertson. **Painting:** Sharrocks Arnold Ltd. **Plastering and screeding:** W. A. Telling Ltd. **Heating installation:** Weatherfoil Heating System Ltd. **Cement glaze:** Regent Surfaces Co. **Aluminium balusters:** Amalcraft Ltd. **Founders and smiths:** Broads Ltd.; Clark, Hunt & Co. **Sanitary ware:** John Bolding & Sons. **Window frames:** Davis Ridley & Co. **Aggre-**

gates: M. Dickerson Ltd. **Fletton bricks:** Erith & Co. **Facing bricks:** S. A. Hunter Ltd. **Metal rolling grilles to bar:** Haskins Rolling Shutters. **Fibre ducting:** Key Engineering Co. **Hollow clay, partition blocks:** London Brick Co. **Precast lavatory partitions:** Mono-Concrete Ltd. **Ironmongery:** Alfred G. Roberts & Co. **Incinerators:** Saniguard Appliances Ltd. **Joinery:** W. E. Stromeyer Ltd. **Sanitary fittings:** Stitson's Sanitary Fittings. **Dome lights:** R. Seddon & Sons. **Artificial stone coping:** Tidnams Ltd. **Rubber link matting:** Tyre Products Ltd. **Cannel reinforcement slabs:** Thermacoust Ltd. **Rod reinforcement:** G.K.N. (Twisteel) Ltd. **S/G pipes, bricks, etc.:** Travis & Arnold Ltd. **Paving slabs:** Wettern Bros. (Manchester) Ltd. **Metal cycle shelters:** Alfred A. Odoni & Co. **Lighting fittings:** Falk Stadelmann & Co.; G.E.C. Ltd.; Benjamin Electric Ltd.; Wardle Engineering Co.; Troughton & Young (Lighting) Ltd.; Courtney Pope Ltd.

Pithead Bath, Dudley Colliery, Northumberland. **Architects:** Richard Sheppard & Partners in collaboration with J. C. Spooner. **General contractors:** Middlemiss Bros. **Sub-contractors:** Asphalt: Limmer & Trinidad Lake Asphalte Co. **Reinforced concrete:** G.K.N. Reinforcement Ltd. **Bricks:** N.C.B. Northern (N. & C.) Div. **Roofing felt:** Wm. Briggs & Sons. **Glass:** Elders Walker & Co. **Patent glazing:** S. Warner & Son. **Structural steel:** Durham Steelwork Ltd. **Central heating, boilers:** Hope's Heating & Engineering Co. **Door furniture:** A. G. Roberts & Co. **Casements:** James Gibbons Ltd. **Roller shutters:** Mather & Platt Ltd. **Paint:** J. Denton Ltd.

Sports Pavilion and Social Centre, Hayes, Kent. **Architects:** Pite, Son &

Fairweather. General contractors: W. L. Cooke & Co. **Sub-contractors:** Reinforced concrete: Johnson's Reinforced Concrete Eng. Co. **Bricks:** W. T. Lamb & Sons. **Roofing felt:** F. J. Prater Asphalte Co. **Tiles:** E. F. Williams Ltd. **Glass:** James Hetley & Co. **Wood-block flooring:** Stevens & Adams Ltd. **Artificial stone:** Girlingstone. **Structural steel:** Dawnays Ltd. **Patent flooring:** Marley Tile Co. W.C. **Partitions:** Venesta Ltd. **Central heating:** Weatherfoil Heating Systems Ltd. **Stoves:** Broad & Co. Ltd. **Electric wiring and fixtures:** Hume Atkins & Co. **Door furniture:** Alfred G. Roberts Ltd.; Stafford Furniture Ltd. **Casements:** Tomo Trading Co. **Window furniture:** Tomo Trading Co. Nettlefold & Moser Ltd. **Roller shutters:** G. Brady & Co. **Sanitary fittings:** John Bolding & Sons. **Tiling:** The Surrey Tile Co. **Wallpaper:** Primavera. **Mats:** Tyre Products Ltd. **Signs:** Drakard & Humble Ltd. **Paints:** Hadfields (Merton) Ltd. **Slate hearth:** Bingley & Son & Follit Ltd. **Bronze plaque:** The Lettering Centre.

House at Nacton. **Architects:** Sandon & Hardinge. **Builders:** Carter Brothers Ltd. **Heating engineers:** H. Warner & Son. **Roofing sub-contractors:** Wm. Briggs & Sons. **Electrical fittings:** Merchant Adventurers, Ltd.; George Forrest & Son, Ltd.; G.E.C. **Paints and plastic emulsion:** Permoglaze, Ltd.

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